

CALIFORNIA STATE BOARD OF HEALTH

MONTHLY BULLETIN

Vol. 12

JANUARY - FEBRUARY, 1917

Nos. 7-8

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MONTHLY BULLETIN

CALIFORNIA STATE BOARD OF HEALTH

Devoted to the Prevention of Sickness and Death

☐ Entered as second-class matter, August 15, 1905, at the post office at Sacramento, California, under the Act of Congress of July 16, 1894.

Sent free, on request, to any citizen of California.

WILBUR A. SAWYER, M.D., Secretary and Executive Officer . . . Editor
GUY P. JONES, Morbidity Statistician . . . Associate Editor

New Plan for Issuing the Bulletin.

The date of publication of the Monthly Bulletin has been advanced one month, beginning with this issue. Hereafter the Bulletin will appear early in the month of publication. In order to bring about this change, it is necessary to combine the February issue with the January number. The March Bulletin will appear during the first week of March. Accordingly, there will be but eleven numbers in this volume of the Bulletin.

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Work of Faithful Health Officers Appreciated.

There are nearly three hundred health officers in California. Of this number 141 did perfect work in reporting the presence or absence of cases of communicable disease, weekly, during the entire year of 1916. Eighty-seven did good work in making such reports, and 28 did fair work. Few were inexcusably negligent. The State Board of Health is highly appreciative of the work of those health officers who cooperated with the board in securing more complete morbidity registration. From those who did mediocre work, the board asks for more effective cooperation. The board is determined that the law requiring the reporting of all cases of communicable disease shall be enforced, and it will adopt every available means for securing the enforcement.

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Little Tuberculosis in Small Dairy Herds.

According to a report of Dr. Charles Keane, State Veterinarian, tuberculosis is much more prevalent among cows in the large dairies than in the smaller dairies. During the first three months of the enforcement of the tuberculin testing provisions of the new law, out of 503 herds, each containing ten or fewer animals, 430 herds were found to be entirely free from tuberculosis. In 198 herds containing ten or more animals,

51 herds were entirely free from the disease. This report should allay the fears of the small dairymen of the state, who, at the time the milk bill passed the legislature, were certain that the new law would drive them out of business. Bovine tuberculosis, apparently, is a much more serious problem for the owner of large herds of dairy cattle than it is for the owner of small herds. The pasteurization provisions of the law, however, enable the large producer to market his milk without difficulty.

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Dairymen Cooperate in Enforcing Milk Law.

The new milk law will be the means of making great headway in the control and eradication of bovine tuberculosis in California, with a minimum expense to the state and to the dairy interests, according to the statement of Dr. Charles Keane, State Veterinarian. Inspectors working under the new law are instructed not to enforce the tuberculin testing provisions in a perfunctory manner, but are required to study the problems on every dairy farm visited and to explain to the dairymen the easiest and most economical methods by which tuberculosis may be eradicated from the herds. With the cooperation of the dairymen throughout the state, tuberculosis in dairy cows may be very greatly reduced and California may have the best supply of pure milk of any state.

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The Midwife Should Be Regulated.

The ignorant and dirty midwife is a menace to health and should not be permitted to practice. The state should protect mothers and new-born babes by making it impossible for the ignorant to attend them. A system of examination and licensing, by the state, and supervision by the state and local health authorities would soon put the most dangerous midwife out of business. As a prerequisite to admission for examination a midwife should be required to go through a special course of training and to be thoroughly drilled in the methods of avoiding infection of mother or child.

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Carrying Health Messages to the People.

The State Board of Health is circulating two moving picture films. One deals with mosquito control work and urges the formation of mosquito abatement districts. The other illustrates the need for pasteurization of public milk supplies. The board has also placed its Monthly Bulletin, enclosed in leather folders, on trains and boats so that travelers will have a chance to learn of public health protection in California.

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New Work for the Corner Cop.

The club-swinging, gold-braided, curled-mustachio policeman of the "funny" paper no longer stands a monumental ornament to the busy street corner of the modern city. One reason is because, with the recent advances in municipal government, something of more importance has been found

for him to do. Although he has always been an ally of the health department, he is now one of the important factors in the enforcement of public health regulations. As a nuisance abater he is in a class by himself. No other official can possibly be so successful as he in the correction of those minor nuisances, attention to which forms a large part of the routine of a local health department. In Berkeley, every policeman is required to make sanitary inspections on his beat regularly. The University of California has recently established a course of instruction for policemen, a considerable part of which has to do with the principles of sanitation.

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**Malaria an Inheritance
From the "Gold Days."**

Malaria was introduced into California in the "early fifties," during the days of the mad scramble for gold, and it has been with us ever since. In some sections of California it probably causes the loss of more days' wages than any other one factor. During 1916 nearly one thousand cases of the disease were reported to the California State Board of Health. This is a small fraction of the total number of cases in the state. Most cases of the disease do not come to the attention of physicians. In malaria infected districts, chills and fever are regarded about the same as common colds. Many a community is not aware of the fact that its commercial backwardness may be due to the large number of cases of malaria within its borders. For these reasons, malaria in California should be thoroughly investigated. If California is to be rid of this disease, active measures of control should be applied as soon as possible in every infected community in the state.

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**Malaria and the
Rural Laborer.**

Many health laws in the interest of labor have been written upon the Statutes of California. Among these may be mentioned the laws requiring the sanitation of food-producing establishments, the law requiring the supply of pure drinking water to employees, the laws requiring better housing conditions, shorter hours of labor, and the laws pertaining to the control of tuberculosis. In addition, there are laws requiring the use of safety devices and many other indirect measures that have to do with the health of the employee. There is room, however, for more legislation of this sort. Nearly all of the laws mentioned affect the laborer in the cities. What has been written upon the statutes for the special benefit of the laborer in rural communities? The farm laborer probably suffers from malaria to almost as great an extent as the city worker suffers from tuberculosis. Malaria is infinitely easier to control than tuberculosis, yet almost nothing has been done in the control of this disease. It has been estimated that malaria causes an annual economic loss to the state of at least two million dollars. A large part of this sum represents loss of wages. Surely no one should be more deeply interested in malaria control than the laborer in rural communities.

Syphilis a Factor In Cause of Insanity. Although the state cared for 10,331 insane patients during 1916, providing them with the very best of care, there is almost nothing done in the prevention of insanity. The insane in California receive the best of care. This is certainly as it should be, for these unfortunates are entitled to the very best of treatment. While the care of the insane is important, the prevention of insanity should receive even greater attention. One of the most important of the preventable causes of insanity is syphilis. The Superintendent of California State Hospitals states that 1,010 patients out of 6,935 admitted to state institutions in the last two years were syphilitic—14.5 per cent. He states further, "In not all persons admitted who are syphilitic is it possible to connect the mental trouble with the syphilitic disease, but of the 1,010 syphilitics admitted, 553, or 54 per cent, were victims of paretic dementia, a definite result of syphilis and an incurable and fatal form of mental trouble. Thus out of the 6,935 cases admitted, 553, or 8 per cent, were paretics with syphilis as the undoubted cause. Not more than 2 or 3 per cent of syphilitics develop paretic dementia, but the latter is such a hopeless and fatal form of disease that prevention of the cause is of vital importance." While there are many other factors entering into the cause of insanity, this one is of special importance from the public health point of view.

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Richmond Inspects Premises for Rent. Richmond has a new city ordinance which requires the inspection of vacant stores, dwelling houses and flats, placing same in a sanitary condition before they shall be occupied again. Such an ordinance is of value in tuberculosis control, and it is certain to be of advantage to Richmond both commercially and from the public health point of view.

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The Passing of the Local Health Board. Under the California health laws every city or town, no matter how small, is required to have a board of health consisting of five members. Many health boards meet seldom, if ever, and the necessary work is carried on by the health officer. Recently a letter was received from a public spirited member of a local health board asking what could be done to bring about a meeting of the board. It had not met since she became a member, and there was no reason to believe it would ever meet. Many local boards are appointed only after the State Board of Health has repeatedly called attention to the law. Some of the larger cities prefer to have a health commissioner or health officer with or without an advisory board of health. The law would be clearer and more consistent if the health officer of a county, municipality, or local health district were made individually responsible for the local health administration. Then the health board would be valuable as an advisory body.

Mud Not Factor In Pneumonia Spread.

Newspapers in California have recently published a considerable amount of misinformation about the relation of mud to pneumonia. As a matter of fact, tracking mud into a dwelling house has about as much to do with pneumonia as with the canals on Mars. Pneumonia is infectious and is spread directly and indirectly from man to man in the ways that many other infectious diseases, such as diphtheria and tuberculosis, are spread: through common drinking cups, handkerchiefs, and discharges from mouth and nose. It is found in all parts of the world at all times of the year, although its toll is heavier during the winter months. Since the infection is so common, the best method of prevention lies in the vigorous maintenance of personal hygiene.

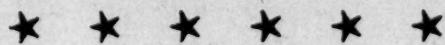
**Local Health District Plan Is Endorsed.**

The following resolution endorsing the measure providing for the establishment of local health districts, now before the legislature, was passed at a recent meeting of citizens of Burlingame, Hillsborough and San Mateo:

WHEREAS, At a well-attended meeting of citizens of Burlingame, Hillsborough and San Mateo, now being held in the City Hall of the city of San Mateo, explanation has been made by representatives of the State Board of Health of a proposed measure for the creation of local health districts; and

WHEREAS, It would be to the interest of said three cities that such a measure should be passed by the state legislature and signed by the Governor, and thereafter that a local district should be organized to include said three cities; therefore, it is

Resolved, As the sense of this meeting that such a measure should be passed and approved, and that upon its going into effect such a local health district be created to include Burlingame, Hillsborough and San Mateo, and suitable territory adjacent thereto.

**Many Babies Die In First Month of Life.**

Of all infants who die under one year of age, according to a report of the United States Census Bureau for 1914, one-sixth die in the very first day of life, one-third during the first week of existence and about one-half before they have reached the age of one month. The corresponding figures for California are slightly higher than those for the United States registration area. Since these data are for 1904 only, the statistics for other years may change the record considerably for California.

The infant mortality rate for children under two years of age is very much lower in California than in the United States registration area. In 1914, in fact, this rate was almost 50 per cent lower than for the registration area. The high death rate for children one month old and less indicates that considerable work is needed in education of mothers

as to proper feeding, and it also indicates that infant welfare workers still have much to do in the education of ignorant mothers in prenatal care.

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San Francisco Banishes the Cigar Cutter.

The cigar cutter has long been recognized as a possible source of infection for many diseases, notably syphilis and tuberculosis. Dr. Wm. C. Hassler, Health Officer at San Francisco, has been instrumental in securing the passage of an ordinance by the San Francisco board of supervisors prohibiting the use of the common cigar cutter in cigar stands, stores and other public places. Violation of the ordinance constitutes a misdemeanor, with a fine of not less than \$10.00 and not to exceed \$25.00, or by imprisonment in the county jail of not more than 25 days, or by both such fine and imprisonment.

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May Expect Infantile Paralysis Outbreak.

California may reasonably expect an outbreak of infantile paralysis next summer or fall. The extensive outbreak in New York last summer will most certainly prove a factor in outbreaks that shall occur in many parts of the United States this year. So many transportation radii spread from New York City to all parts of the United States that many active cases and carriers are certain to have traveled from New York to other parts of the country. It is but logical to expect that these will be foci of infection in their respective communities. Since the travel between New York and California cities has been quite extensive during the past year, and since cases of the disease have developed in persons arriving from New York, and in contacts with recent arrivals, we must expect an outbreak during the coming summer. Health officers should watch carefully for cases that may be suspicious of the disease, and prompt notification should be made to the local and state health authorities.

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Issue Certificates of Birth Registration.

The health departments of San Diego and Richmond have adopted methods for securing more complete registration of births. Dr. A. E. Banks, Health Officer at San Diego, and Dr. Chas. R. Blake, Health Officer at Richmond, have arranged to provide the parents of newly born infants with a certificate of birth registration, upon which is given the reference to the index number in the records of the department. On the certificate issued in San Diego, the following statement is made:

“The record of this birth may be used to prove citizenship or furnish proof of age for entering or leaving school, securing working permit or marriage license, holding public office, securing passports, adjusting insurance, inheriting money or property, and securing other financial benefits.”

A Newspaper Opinion on Vaccination.

The old agitation against vaccination has bobbed up in the legislature again, and along with it has come a proposal to prohibit the physical examination of school children. In commenting upon these subjects the Oakland "Tribune" states:

"Even if the state should commit the fatal error of creating more favorable conditions for smallpox epidemics in the public schools, it should in all conscience leave the private schools as a refuge for those who can afford it. After prohibiting the private schools from taking precaution to conserve the health of pupils, the next logical step would be to prevent the householder from protecting his own family. * * *

"The proposal to prohibit the compulsory examination of school children by the health authorities aims to place the children of ninety-nine parents at the mercy of one ignorant or evilly-inclined parent. Modern social and governmental methods are impatient with and intolerant of such practices."

* * * * *

Leprosarium Bill Before President.

The bill providing for the establishment of a national leprosarium passed the United States Senate January 26th, and is now ready for the President's signature.

If such an institution is established it means that adequate care will be provided for these unfortunates, of whom there are several hundred scattered throughout the United States. The measure is most humanitarian, and there is every reason to believe that it will receive the approval of the President.

ONE WAY TO MAKE A CLEAR RECORD.

There is one health officer in California who wants a clear record for making regular weekly reports of communicable disease, as required by the State Board of Health. He has failed, however, to submit such reports in the required manner. There have been times during the past year when the State Board of Health has not heard from him for periods of a month, and even for six weeks. Undaunted, however, he has sent the following letter to the morbidity department:

MY DEAR SIR: What few data I may have lost or neglected or in any way failed to report, you will please fill out for me as being no communicable diseases, and put my name to the blank to make reports complete.

I am glad to cooperate in every way possible in this good work. You may depend upon me in the future.

Yours truly.

HEALTH OFFICERS SCORES.

During 1915 there were only forty-two health officers who reported every week to the California State Board of Health as required by law, but during 1916 no less than one hundred and forty-one health officers have made perfect scores. The improvement in morbidity registration is very marked, and health officers have taken a much greater interest in securing such reports during the past year.

Eighty-seven health officers made good scores, reporting for more than forty weeks during the year. There were twenty-eight such officials who reported for at least twenty-six weeks but for not more than forty weeks. Twelve reported for from sixteen to twenty-five weeks, and there were but eleven who sent in reports for less than fifteen weeks.

The improvement over 1915 is great, and it is hoped that 1917 may bring still more perfect scores. While the records for some cities have been affected because of the fact that two or more health officers have served during the year, those health officers who reported regularly during their term of office have been given perfect scores. The State Board of Health intends to continue the publication of the record of city and county health officers, in order that the various communities of the state may know exactly in what manner health officers are performing the duties required of them by law.

Following are the names of health officers classified according to their faithfulness in reporting during 1916:

PERFECT SCORES.

The Following Health Officers Reported to the State Board of Health Every Week During 1916, as Required by Law:

| | |
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| Albertson, Jas. H., Sonoma.* | Dixon, Dr. Howard B., Daly City.* |
| Anderson, R. L., Monterey. | Domann, Dr. A. H., Orange Co. |
| Anthony, Dr. R. Seldon, Los Gatos. | Eckhardt, Dr. O. A., Sierra Co. |
| Arthur, Dr. E. A., Stockton. | Ensign, Dr. H. W., Dinuba. |
| Avery, Dr. Ralph W., Oxnard. | Falk, Dr. E. V., Modesto. |
| Banks, Dr. A. E., San Diego. | Fay, Dr. G. H., Auburn.* |
| Beattie, Dr. D. A., San Jose.* | Field, Chas. H., El Centro.* |
| Belyea, Dr. J. H., Tehama.* | Folkins, Dr. F. H., Redlands. |
| Benson, John C., Dixon.* | French, Hugh W., Montague.* |
| Benton, Dr. J. J., Berkeley. | Frost, Dr. Lowell C., Beverly Hills. |
| Black, Dr. Stanley, Pasadena. | Gates, Dr. W. F., Oroville. |
| Blake, Dr. Chas. R., Richmond. | Gaylord, Dr. Chas. R., Arcadia. |
| Blevins, Dr. W. J., Yolo Co. | Gaylord, Dr. Chas. R., Monrovia. |
| Brown, Dr. B. F., Hermosa Beach. | George, Dr. W. S., Contra Costa Co. |
| Brown, Dr. N. J., Tehachapi. | Glasscock, Mrs. W. N., Rialto.* |
| Browning, Dr. F. W., Hayward. | Gray, H. F., Palo Alto. |
| Brumwell, Dr. D., King City. | Gregory, Dr. L. C., Fort Bragg.* |
| Callnon, Dr. J. W., San Bernardino Co. | Greven, Dr. H. J., Firebaugh. |
| Carpenter, Dr. C. R., East San Diego.* | Hall, P. J., Placerville. |
| Chapline, Dr. F. L., Orange. | Hardey, J. H., Ventura. |
| Chappell, Dr. G. E., Grass Valley. | Hassler, Dr. W. C., San Francisco. |
| Coleman, Dr. F. W., Lodi. | Heironymus, Dr. A., Alameda. |
| Connors, W. F., Amador City. | Heley, Dr. L. St. John, Madera. |
| Cook, W. F., San Luis Obispo. | Hennemuth, Dr. J. L., Stanislaus Co. |
| Cope, J. Hal, Alameda Co.* | Higgins, Dr. O. C., Porterville. |
| Corey, Dr. F. E., Alhambra. | Hood, Dr. Wm. L., Tuolumne Co. |
| Cox, Dr. H. M., San Luis Obispo Co. | Hubble, Dr. J. E., Lordsburg. |
| Cuneo, Dr. P. J., Bakersfield. | Hull, Alex., Napa. |
| Davison, Dr. John T., San Joaquin Co.* | Hurley, T. A., Paso Robles.* |
| Dear, Robert C., McKittrick.* | Iglick, Dr. S., Orland.* |
| Diddle, Dr. J. F., Albany.* | Jadarola, Dr. R., Los Banos. |

*Did not serve full year.

PERFECT SCORES—Continued.

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|--------------------------------------|-------------------------------------|
| Kay, H. E., Jackson. | Peters, H. E., Pittsburg. |
| Keck, Dr. Wm. H., Santa Cruz Co. | Phinney, Dr. C. H., Eagle Rock. |
| Keeley, Wm. H., Rocklin. | Pomeroy, Dr. J. L., Los Angeles Co. |
| Keopke, F. H., Watsonville. | Porter, J. A., Newport Beach. |
| Knox, Dr. Chas. R., El Cajon. | Powers, Dr. L. M., Los Angeles. |
| Kuser, Dr. J. H., Marin Co. | Purcel, Dr. Ruth, San Marino.* |
| Lang, Dr. J. H., Fullerton. | Purcel, Dr. Ruth, San Gabriel. |
| Lane, Dr. J. A., Ferndale. | Putnam, Dr. H. A., Inglewood. |
| Lawson, Dr. Frank, Glenn Co. | Randall, C., Calistoga.* |
| Le Baron, Dr. Engene, Brawley. | Reed, Dr. Elgar, Chino. |
| Leimbach, Dr. J. H., Sacramento Co. | Rolison, E. A., Redding. |
| Leisenring, Dr. L. M., El Dorado Co. | Ross, Dr. L. J., Redwood City. |
| Long, Dr. G. L., Fresno Co. | Rudolph, Dr. F., Corning. |
| Lynch, Dr. W. C., Pleasanton. | Ryan, Dr. L. M., Banning. |
| McCullum, S. A., Salinas. | Seawell, Dr. J. W., Healdsburg. |
| McFarlane, Dr. A. H., Mountain View. | Shank, Dr. G. A., Huntington Beach. |
| McKinnon, Dr. G. W., Arcata. | Shaw, Dr. J. H., Sonoma Co. |
| McLean, Dr. W. C., San Mateo. | Simmons, Dr. G. C., Sacramento. |
| McMannus, F. P., Hercules.* | Simpson, Dr. Wm., Santa Clara Co. |
| Mabry, Dr. Wm. C., Tropico. | Smith, Dr. K. B., Oakland.* |
| Madden, Dr. Thos. F., Sanger. | Smyth, Dr. Thos. U., Ross.* |
| Maggard, Dr. W. F., Tehama Co. | Stile, Dr. John, Alturas.* |
| Marshall, W. H., Chico. | Swan, Dr. J. H., Stanton. |
| Metcalf, Dr. C. E., South Pasadena. | Taylor, Dr. H. N., Maricopa. |
| Milberry, P. J., Lakeport. | Temple, Dr. Jackson, Santa Rosa. |
| Miller, Dr. H. O., Hemet.* | Thompson, Dr. Elliot, Red Bluff. |
| Morrill, F. L., Fairfield.* | Thompson, Dr. L. Q., Gridley. |
| Morris, Dr. C. A., Kern Co. | Thompson, Dr. W., Huntington Park. |
| Mouser, Dr. B. J., Piedmont. | Van Allen, Dr. Lew K., Ukiah.* |
| Mudd, Dr. J. L., Merced Co. | Vance, Dr. Allen H., Sausalito.* |
| Mumma, Frank, Woodland.* | Walker, Dr. W. H., Willows.* |
| Nale, J. C., Holtville. | Walsh, Dr. F. D., Susanville. |
| Nicks, Conrad, Point Arena.* | Weirich, Dr. E. W., Angels Camp. |
| O'Donnell, Dr. J. M., San Benito Co. | Wheeler, G. M., Loyalton. |
| Palmer, Dr. H. P., Vacaville. | Wicherski, Dr. O. G., San Diego Co. |
| Parker, Dr. Garth, Monterey Co. | Wood, Dr. C. W., Mono Co.* |
| Parkhurst, Dr. Jane H., Burlingame. | Wright, Dr. F. L., Mariposa Co. |
| Pascoe, Dr. M. W., Taft.* | Zirker, Dr. D. W., Merced.* |
| Peers, Dr. R. A., Colfax. | Zochert, Dr. L. W., La Mesa.* |
| Peery, Dr. T. P., Sutter Co.* | |

CLASS B. GOOD SCORES.

These Health Officers Reported for More Than 40 Weeks in 1916:

| | |
|--|--|
| Allen, Dr. Will L., National City. | Girdlestone, Dr. C. W., Riverside. |
| Armistead, Dr. H. V., Newman. | Gunn, Dr. F. C., Willits. |
| Bainbridge, Dr. J. C., Santa Barbara Co. | Haines, Dr. W. H., Etna. |
| Baird, Dr. J. H., Riverside Co.* | Hancock, Dr. D. R., Redondo Beach. |
| Bell, Dr. C. A., Shasta. | Hill, Dr. John E., Azusa.* |
| Blackshaw, Dr. J. B., Sebastopol. | Hirschey, C. M., Hillsborough. |
| Bowman, E. R., Upland. | Hodges, W. E., San Juan. |
| Burres, W. A., Sutter Creek. | Hromadka, Dr. A. B., Sawtelle. |
| Byron, Dr. W. P., Lemoore. | Hutchison, Dr. C. W., Coalinga. |
| Chapman, Chas., Fowler. | Jones, Dr. C. P., Nevada Co. |
| Chase, Dr. R. E., Glendale. | Johnson, J. G., St. Helena. |
| Clark, Dr. J. I., Santa Ana. | Kendall, Dr. W. M., Venice. |
| Coleman, Dr. B. F., Gilroy. | Lasswell, Dr. B. J., Plumas Co. |
| Constable, Dr. C. B., Lompoc.* | Latta, Dr. Leila, Chula Vista.* |
| Crise, Dr. B. L., Escondido. | Leech, Dr. C. R., Walnut Creek. |
| Davis, Dr. W. S., Corona. | Locke, Dr. C. W., Lindsay. |
| Desrosier, Dr. G. W., Colusa Co. | Lohse, G. W., Roseville. |
| Drennan, Dr. A. T., Emeryville. | Lorini, Dr. R., Coronado. |
| Duncan, Dr. R. B., Petaluma. | Lynch, Dr. G. L., Amador Co. |
| Dungan, Dr. J. F., Exeter. | McCarty, Dr. A. L., Glendora. |
| Ellis, Dr. W. L., Callexico.* | McGovern, Dr. G. C., So. San Francisco.* |
| Emmons, Dr. Calvert L., Ontario. | McGuffick, Dr. R. K., Imperial Co. |
| Fernandez, Dr. M. L., Pinole. | McKibbin, Dr. F. W., Oakdale. |
| Fine, Dr. E. M., Del Norte Co. | McMurty, Dr. M. S., Clovis. |
| Gallup, Dr. H. A., Arroyo Grande. | Mackerras, Dr. R. H., Sierra Madre. |
| Gardner, Dr. F. M., San Bernardino. | Manning, Dr. Will, Fillmore. |
| Gillespie, J. A., Kingsburg. | Manson, Dr. John, Placer Co. |

*Did not serve full year.

CLASS B—Continued.

Maulhardt, Dr. A. A., Ventura Co.
 Merrill, Dr. B. E., Santa Paula.
 Merrithew, Dr. Edwin, Martinez.
 Murrill, Dr. J. A., Tracy.
 Parker, Dr. A. S., Needles.
 Peckham, Dr. J. J. Avalon.
 Peery, Dr. J. T., Corcoran.
 Peterson, Dr. E. A., Vallejo.
 Piper, Dr. H. E., Santa Cruz.
 Preston, Dr. A. W., Tulare Co.
 Price, Dr. L., Manhattan Beach.
 Reid, Dr. R. S., Oceanside.
 Robbins, Dr. B., Hanford.
 Ruggles, C. H., Fort Jones.
 Schofield, Mrs. Norman, Sunnyvale.
 Schrodes, Dr. S. H., Delano.
 Smith, Dr. F. Holmes, San Bruno.
 Stagner, Dr. C. E., Gustine.*

Starbird, Dr. Geo. A., Solano Co.
 Stevens, Dr. C. S., Santa Barbara.
 Stone, Dr. W. J., San Rafael.
 Sweeney, Dr. A. H., Fresno.
 Taylor, Dr. Ralph L., Long Beach.
 Thompson, Dr. L. L., Butte Co.
 Traber, Dr. Chas. H., Reedley.
 Truxaw, Dr. J. N., Anaheim.
 Upton, Dr. W. E., Lake Co.
 Wallace, Dr. Carl T., Humboldt Co.
 Ward, Benj. B., San Fernando.
 Warner, Dr. J. K., Livermore.
 Welin, Dr. Albert F., Rio Vista.*
 Wilson, Dr. G. L., Turlock.
 Wing, Dr. L. A., Eureka.
 Woodward, H., Dunsmuir.*
 Wright, Dr. Paul, Sisson.*

CLASS C. FAIR SCORES.

These Health Officers Reported for Less Than 40 Weeks, But for More Than 25 Weeks:

Arenschield, Dr. E. M., Elsinore.
 Atkinson, Dr. A. A., Dorris.
 Beattie, Dr. W. G., San Mateo Co.
 Calanan, Geo. H., Nevada City.*
 Champion, Dr. J. A., Colton.
 Childs, Dr. B. M., Santa Maria.
 Corpe, Dr. S. L., El Monte.
 Dennis, W. H., Sonora.
 Dozier, Dr. W. E., Lassen Co.
 Evans, Jas. P., Pacific Grove.*
 Jones, Dr. J. R., Yreka.
 Jones, Dr. O. W., San Anselmo.
 Liftchild, Dr. Judson, Mendocino Co.
 Miner, Dr. W. D., Morgan Hill.

Neff, Dr. F. F., Concord.
 Niemeyer, W. H., Wheatland.
 Pache, Dr. Geo. F., Calaveras Co.
 Rice, Dr. N. J., Pomona.
 Rockwell, Oroville, Fortuna.
 Scott, Dr. C. L., Kings Co.
 Scott, Dr. Florence, Belvedere.
 Seibert, Dr. F. M., Mayfield.
 Shipman, Dr. Chas. G., Santa Monica.
 Stafford, Dr. O. R., Vernon.
 Steinwand, Dr. O. W., Selma.
 Stokes, Dr. W. H., Whittier.
 Thompson, Dr. E. H., Burbank.
 West, Dr. F. D., Beaumont.

CLASS D.

These Health Officers Reported for More Than 15 Weeks, But for Less Than 26 Weeks:

Barr, Dr. J. H., Yuba Co.
 Beattie, Dr. J. I., Alviso.*
 Chase, James V., Mill Valley.
 Doherty, Dr. S. McL., Napa Co.
 Elliott, Dr. E. E., Compton.*
 Fowler, Dr. G. W., Santa Clara.

Lloyd, Thomas, San Jacinto.
 McFarland, Dr. W. L., Benicia.
 Mooney, Dr. C. N., Blue Lake.
 Reed, Dr. J. D., Covina.
 Sandholdt, Dr. J. P., Kennett.
 Thomas, Dr. F. W., Claremont.

CLASS E.

These Health Officers Reported for Less Than 15 Weeks:

Eddie, W. T., Potter Valley.*
 Fields, Dr. D. B., Weaverville.
 McGuffick, J. R., Larkspur.*
 Michael, Dr. Luther, San Leandro.
 Peck, Dr. R. E., Winters.
 Reese, Dr. J. W., Perris.

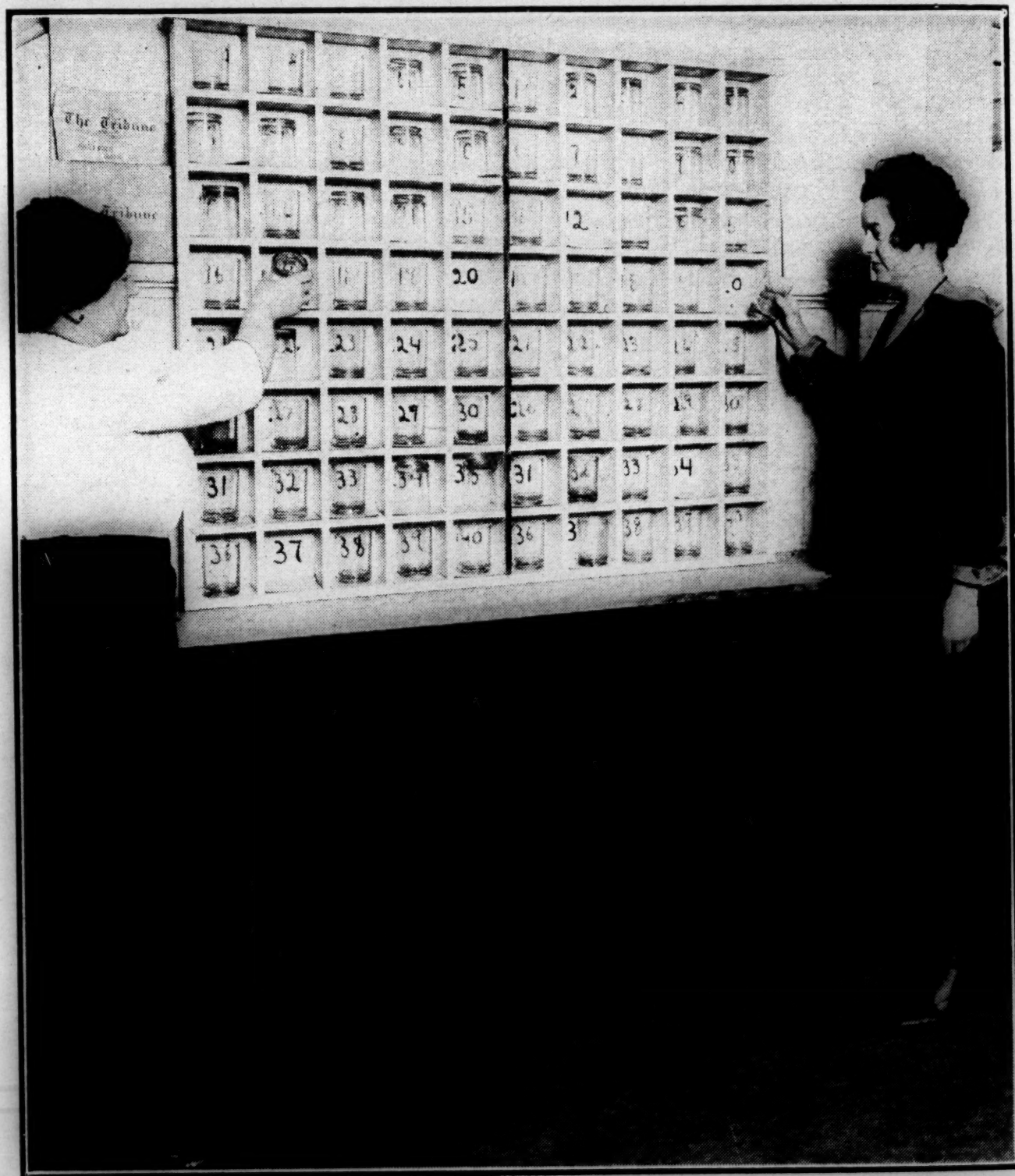
Riche, Dr. E. J., Watts.
 Rosson, Dr. J. B., Tulare.
 Simmons, R. W., Biggs.*
 Turner, C. E., Bishop.
 Woodin, Dr. I. J., Inyo Co.

*Did not serve full year.

INDIVIDUAL DRINKING GLASSES IN CALIFORNIA STATE PRINTING PLANT.

Individual drinking glasses are used by employees of the California state printing plant. Each glass is numbered and placed in a rack upon soft blotting paper, which absorbs all excess moisture upon the glasses. They are placed bottom side up, so as not to catch dust. The rack shown in the illustration is in the bindery at the printing plant, but the composing room and other departments are similarly equipped.

If all employers were to provide their employees with individual drinking utensils of either paper or glass, there would be fewer acute colds and other communicable diseases which lower the employee's efficiency and thereby work a detriment to production.



CHRISTIAN SCIENTISTS COOPERATE IN REPORTING COMMUNICABLE DISEASE.

The Christian Scientists of southern California are cooperating with the California State Board of Health in the enforcement of the laws pertaining to the reporting of cases of communicable disease. Mr. Henry Van Arsdale, of the Christian Science Committee on Publication for Southern California, in circular letter No. 11, addressed to Christian Scientists of that part of the state, has written as follows:

Los Angeles, California, December 12, 1916.

To the Christian Scientists of Southern California:

Our leader has said, "Christian Scientists abide by the laws of God and the laws of the land; and, following the command of the Master, they go into all the world, preaching the gospel and healing the sick" (Miscellany, page 128). She has also spoken particularly of the reporting of a contagious case to the "proper authorities when the law so requires" (Miscellany, page 220).

In California there is a state law which reads as follows:

"All physicians, nurses, clergymen, attendants, owners, proprietors, managers, employees, and persons living in or visiting any sick person in any hotel, lodging-house, house, building, office, structure, or other place where any person shall be ill of any infectious, contagious or communicable disease, shall promptly report such fact to the county, city and county, city or other local health board or health officer, together with the name of the person, if known, and place where such person is confined, and nature of the disease, if known." (General Laws, Title 435, Public Health, Act 2830, Section 16.)

This statute and the orders of the State Board of Health based on it, require the following named diseases to be reported:

| | |
|-------------------------------------|----------------------|
| Anthrax | Mumps |
| Beri-beri | Opthalmia Neonatorum |
| Cerebrospinal Meningitis (Epidemic) | Pellagra |
| Chickenpox | PLAGUE |
| CHOLERA, ASIATIC | Pneumonia |
| Dengue | POLIOMYELITIS |
| DIPHTHERIA | Rabies |
| Dysentery | SCARLET FEVER |
| Erysipelas | SMALLPOX |
| German Measles | *Syphilis |
| Glanders | Tetanus |
| *Gonococcus Infection | Trachoma |
| Hookworm | Tuberculosis |
| LEPROSY | Typhoid Fever |
| Malaria | TYPHUS FEVER |
| Measles | Whooping Cough |
| | YELLOW FEVER |

And "Any disease which appears to have become epidemic."

Names of diseases in capitals must be immediately quarantined (General Laws, Title 435, Public Health, Act 2830, Section 13, Rule 1); the others named (and such as may be added thereto from time to time) may be quarantined whenever, in the opinion of the State Board of Health or its Secretary, such action is necessary to protect the public health, and shall be isolated whenever, in the opinion of said State Board of Health, its Secretary, or the local Board of Health, or Health Officer, it may be necessary to protect the public health. (General Laws, Title 435, Public Health, Section 13, Rule 2.)

The foregoing list can be changed at any time by the State Board of Health or the Secretary (Id. Rule 2).

*Reported by office number. Name and address not required.

The Political Code of the State of California, Section 2979, defines the powers and duties of the State Board of Health. These powers in general include inspection, examination, quarantine, and disinfection of persons, places, and things; to commence and maintain all proper and necessary actions and proceedings, to enforce its regulations; to abate nuisances dangerous to health, and to protect and preserve the public health. Local boards of health in connection with the State Board of Health have power to adopt and enforce such regulations as they may deem necessary in respect to contagious or infectious disease. The final clause of said section reads, "It shall have power to adopt and enforce rules and regulations for the execution of its duties under this section."

The regulations in force in any city or community may differ from the regulations in force in other places, therefore, information respecting local conditions should always be obtained by inquiring of the local health officer. For instance, in a city in southern California the health officer addressed a letter to Christian Science practitioners requesting them to make reports of the following cases:

"All skin eruptions associated with acute illness, all sore throats (with a view to detecting Diphtheria and Scarlet Fever), all cases with a marked cough, running at the nose, eyes, etc. (with a view to determining measles and whooping cough), all cases with continued fever (on account of the possibility of typhoid fever, etc.).

It is to be observed that in making this request, practitioners are asked to report symptoms which are not necessarily indicative of a communicable disease. We should be glad to comply with such requests, however, for it is quite important that we should be on good terms with the health officers and that they should be assured by deeds as well as words of our willingness to obey the law and take all reasonable precautions for the rights of other citizens.

As a rule, blank forms for giving notice of reportable diseases can be obtained from local health officers. In filling out such blanks, a Christian Scientist should not go into details or attempt to report as though he were diagnosing the case.

One of the differences between the practice of medicine and the practice of Christian Science is that the former is based on physical diagnosis while the latter is not. This distinction is important in constitutional law as well as in Christian Science. The law does not require any one but a medical doctor to have expert ability to recognize infectious or contagious diseases, but it does require all citizens to have the knowledge of human health and disease possessed by all intelligent persons and to act as stated in the statutes above mentioned and quoted from.

Therefore, when a Christian Scientist has reason to suspect that a person in his family or house is afflicted with any disease named in the statute, or named by the State Board of Health pursuant to the statute, he should either call a medical doctor to make a diagnosis and give any notice that may be necessary, or he should report the case to the city or town board of health as a suspected case of infectious or contagious disease. One of these courses should be pursued promptly as soon as the reason for it becomes evident, unless the disease is immediately destroyed, as it should be by the effectual practice of Christian Science. Christian Science practitioners would do well to see that the law is obeyed by all persons who employ them.

A copy of this letter will be sent to each practitioner in southern California having a card in The Christian Science Journal, and additional copies will be sent to the clerks of branch churches and societies for their directors or members. The information contained in this letter has been passed on by competent legal counsel, and has been approved by Judge Clifford P. Smith, Manager of Committees on Publication.

Yours very truly,

HENRY VAN ARSDALE,
Committee on Publication.

If other organizations in California would issue as clear, well-written statements on this subject to their members, there would, no doubt, be many more cases of communicable disease reported. The California State Board of Health takes this opportunity of thanking the Christian Scientists of southern California for their cooperation in this matter.

THE WORK OF THE CALIFORNIA STATE BOARD OF HEALTH JULY 1, 1914, TO JUNE 30, 1916.

The great diversity in the work of the California State Board of Health is shown in the Twenty-fourth Biennial Report. Each one of the seven bureaus of the board is engaged in many lines of work. These seven bureaus, Administration, Communicable Diseases, Vital Statistics, Tuberculosis, Sanitary Engineering, Foods and Drugs and Registration of Nurses, are keeping pace with the growth of the state, and each is constantly proving itself of greater service to the people.

One of the newer features of such service is supplied by the Bureau of Sanitary Engineering and consists of the regular bacteriological examination of municipal water supplies, at stated intervals. Twenty-one cities of the state have taken advantage of this service and more are constantly being added to the list. This bureau is also doing a large amount of field work in the investigation of sewage disposal and water supplies, and in the prevention of stream pollution and abatement of nuisances. In addition, it is giving a large amount of advice on rural sewage disposal, water supplies, summer resort sanitation and similar problems that are met by the individual rather than by the municipality. The Bureau of Sanitary Engineering has only been organized since August, 1915, but during this short period it has accomplished a large amount of work and has proved the necessity for its future maintenance.

The work of the Bureau of Foods and Drugs is also in the nature of direct service to the people of California. During the biennial period, this bureau has destroyed more than a million pounds of food unfit for human consumption. It has referred not less than 461 cases to district attorneys during the year ending June 30, 1916, the fines imposed amounting to more than six thousand dollars. These convictions are of great value in improving the general food supplies offered to the people of the state. This bureau has also examined many samples of foods supplied to state institutions. It has the enforcement of the cold storage laws and also shares in the enforcement of the milk law.

The Consulting Nutrition Expert, during the biennial period, has made detailed investigations of the food problems of state institutions, and acts in an advisory capacity in securing the best possible dietary for the state's wards.

Control of Epidemics.

The Bureau of Communicable Diseases has been of untold value to the people of the state during the biennial period in its control of epidemics of communicable diseases. Not less than 73 special investigations of epidemics were made during the biennial period. These investigations involved typhoid fever, scarlet fever, rabies, poliomyelitis, cerebrospinal meningitis, diphtheria, dysentery, plague, malaria, small-pox, hookworm, Rocky Mountain spotted fever, and many other diseases. Some of these outbreaks were of great importance to large numbers of persons, the population of entire cities in some cases being endangered. In addition to bacteriological examinations, the bureau has distributed

large amounts of anti-typhoid vaccine and ophthalmia neonatorum prophylaxis outfits. Extensive work in malaria investigations has also been carried on by the consulting parasitologist of the board, a survey of the northern part of the state having been made during the biennial period. This survey was productive of excellent results, and it specially emphasizes the great need of the adoption of special measures for eradicating malaria-bearing mosquitoes from California.

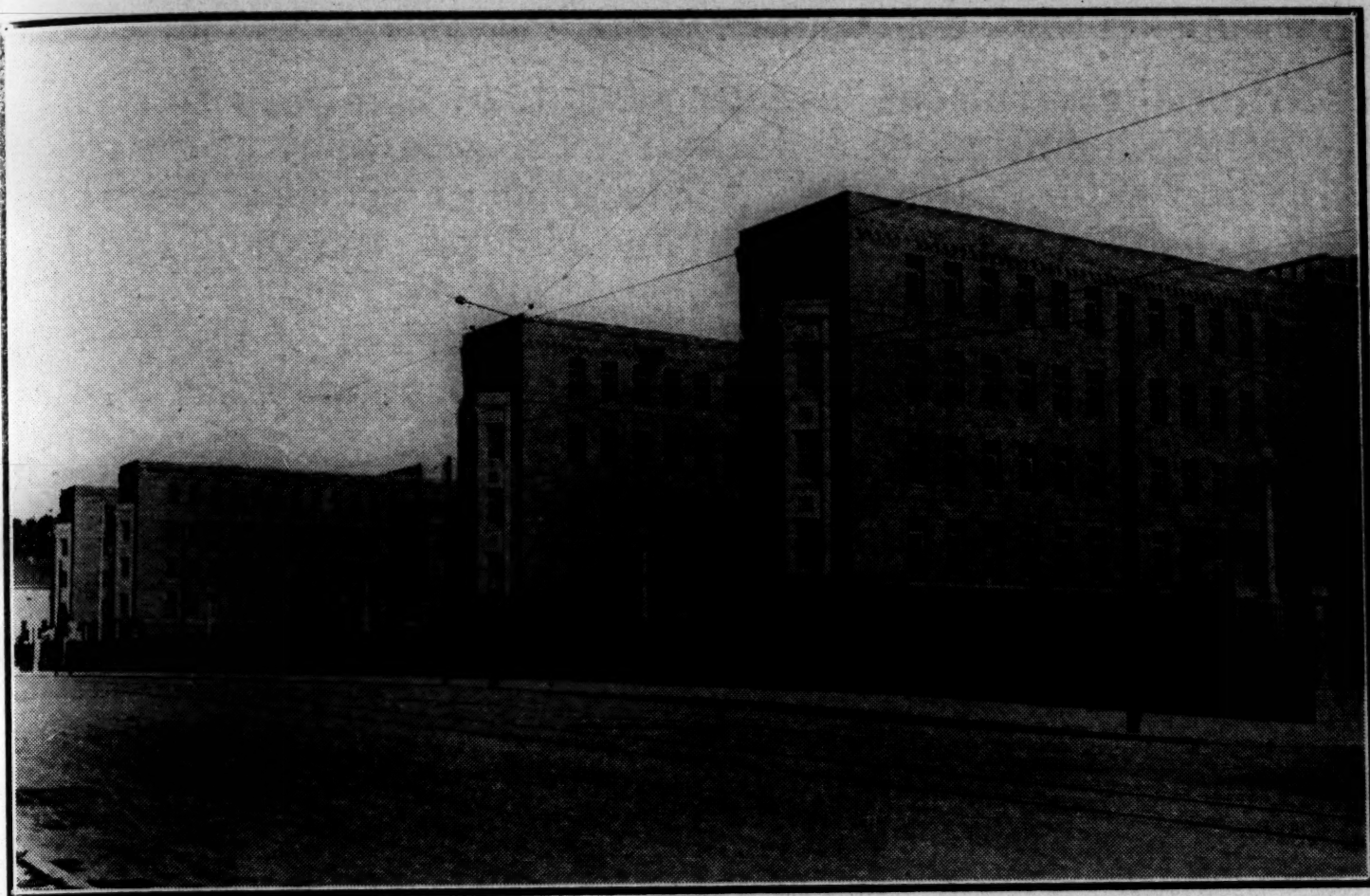
The Bureau of Registration of Nurses, through its work in securing the better education of nurses, has rendered a distinct service to the people of California during the past two years. A sick person is entitled to the best possible care, and the bureau, through its work in the standardization of courses given in training schools, through the examination of nurses for the certificate as registered nurse, and through the constant stimulation of bettering conditions in training schools, has done much in providing better care for the sick in California.

Better Care for Tuberculous.

The Bureau of Tuberculosis has been specially active in improving the conditions in county tuberculosis hospitals throughout the state. Many persons suffering from tuberculosis have secured better food and better medical attention as the result of the activities of this bureau.

The Bureau of Vital Statistics has made more extensive tabulations of deaths, births and marriages than ever before. In fact, there are very few divisions of vital statistics in any state that make such complete and detailed tabulations and classifications as the Bureau of Vital Statistics of the California State Board of Health.

The operations for the eradication of bubonic plague, in conjunction with the United States Public Health Service, have gone forward during the biennial period covered by the twenty-fourth report. The other activities of the Bureau of Administration, including morbidity reports and sanitary inspections, have advanced. More cases of communicable disease are being reported now than ever before in the history of the board and health officers, and physicians are showing greater interest in securing more complete morbidity registration. The Sanitary Inspector has made 1,170 inspections during the biennial period and has secured the abatement of more than 3,000 nuisances. Sanitary surveys were made of thirty-seven towns and one hundred and sixteen summer resorts were inspected, besides several hundred inspections of miscellaneous character. In addition to this sort of work an active campaign against rabies in Modoc and Lassen counties was undertaken under the supervision of the sanitary inspector.



The San Francisco Hospital recently completed. More than \$3,000,000 has been spent in this modern institution and its equipment.

IMPROVEMENT IN COUNTY HOSPITALS.

There has been a great improvement in county hospitals throughout California during the past few years, particularly in those counties having large populations. The new county hospital in San Francisco, which has recently been completed, is as well equipped as any hospital. The management of the institution and the nursing service provided is of the most efficient type. In the past, county hospitals have too often been merely almshouses. In the modern institutions the sick are segregated from the indigent in different buildings, and in some places, in different localities.

The Los Angeles County Hospital is one of the largest of its kind in the United States and the most excellent equipment and service are provided. In some of the smaller county hospitals throughout the state, great improvements have been made recently, but in some of those counties having low populations conditions in hospitals are particularly bad. Some of these counties are planning the construction of new buildings, however, and when these are completed, the county hospitals in California should take first rank.

PUBLIC HEALTH ACTIVITIES IN HAWAII AS SEEN IN A RECENT VISIT.

ADELAIDE BROWN, M. D., San Francisco, member California State Board of Health.

A territorial government has some advantages and they are prominent in the health administration of Hawaii. The geography of the territory forms it into natural districts. A health officer manages the island of Hawaii, a combined district of Maui and Molokai, and Oahu and Kauai. Twenty-six government physicians, also, are distributed through the islands. Dr. J. S. B. Pratt, of Honolulu, president of the Territorial Board of Health, is located at the center of population, as well as of government, and is a full-time man.

The novel problems to individuals from the mainland who are interested in public health are those connected with leprosy and those arising from the close proximity of the Hawaiian Islands to the Orient. The quarantine regulations are severe for all immigration from the Orient. Cholera carriers are looked for in each ship and vaccination is enforced. Vaccination is also performed in the schools, and a successful result must be secured. Plague is a constant menace and in enforcing "clean ups" every male citizen of the highest classes enlists to help in the sanitary squads. The menace of the yellow fever mosquito led to "mosquito abatement" work by the community, and "top minnows" inhabit each pool and fish pond in the marshes between Honolulu and Waikiki, its adjacent suburb. Today the tourist sits out of doors, comfortably, at night, while before this work was accomplished, screened porches were an absolute necessity.

Control of Leprosy.

Cases of leprosy come or are sent for observation to Kalihi, an observation settlement on the outskirts of Honolulu. Here the United States Government maintains its laboratories under Dr. Donald H. Currie as director. Dr. Currie is well known to those engaged in public health activities in California, as the former secretary of the State Board of Health. At Kalihi, Dr. Currie and his predecessors have assembled the most complete library on leprosy in our country. Dr. Currie is now completing its bibliography and hopes that this station will publish, from time to time, a review of the recent literature on leprosy, supplementing the Index Medicus and the original bibliography.

Cases are kept under observation and treatment at Kalihi for six months or longer, and if in that time all open lesions are healed and nasal discharges are negative, an occasional case is paroled, to report every two months. The disease has its group of healed cases, as tuberculosis has, and "all methods of treatment must be weighed judiciously with a clear understanding that certain cases are cured, untreated."

At present, open skin lesions are cauterized with trichloroacetic acid or carbon dioxide, Snow, and the chaulmoogra oil is given by hypodermic; taken by mouth it has proven very difficult medication. The diagnosis is made on the presence of the bacillus of Hansen in the surface lesion and nasal discharge. If negative results are still obtained after six months, patients may be paroled from the station, being sent

to Molokai, where a well developed community life exists in the colony. The government furnishes school, church, recreation, hospital care, housing, and rations. The "movie" and love of music of the people make life's diversions. Many times, the relative, wife or husband, who has gone to Molokai with the patient, on his death, begs to remain, in the colony, though well.

The colony consisted of, June 30, 1916—

| | | |
|---------|-------|-------|
| Males | ----- | 377 |
| Females | ----- | 252 |
| | | <hr/> |
| | | 629 |

Kalihi, June 30, 1916—

| | | |
|---------|-------|-------|
| Males | ----- | 24 |
| Females | ----- | 20 |
| | | <hr/> |
| | | 44 |

55 were transferred to Molokai during the year.

They have the electoral franchise and are a factor in their district. Marriage takes place at Molokai and the tragedy of immediate separation from the babies born of these parents must be hard for a people as gentle and affectionate as the Hawaiians. The infant is taken immediately at birth to the Infants' Home at Molokai, stays there two years and is then sent to the home, one for boys and one for girls, maintained in Honolulu by the Franciscan Sisterhood for the children of leprous parents. Among these children, since this routine was observed, only one case of leprosy has developed. That was in a twenty-month-old baby, who, after birth, was left six or eight hours with its mother, as a severe storm prevented its immediate removal.

The final disposal of these young children interested us, and from the sister in charge we gathered the information that in some cases relatives take them out; in others there are cross-marriages between the boys and girls of the two institutions; the boys drift back more easily into the working world, and their origin is not a stigma among the Hawaiians.

Inspection of School Children.

In Honolulu, a department for the physical examination of school children has been organized this year, under Dr. L. L. Patterson, a full time public health officer. He examined 8,177 in twenty schools. His work also covered sanitation of school buildings.

The race distribution is interesting—

| | Per Cent |
|----------------------------|----------|
| Japanese | 28.1 |
| Hawaiian and part Hawaiian | 24.7 |
| Chinese | 19.9 |
| Portuguese | 16.9 |
| Anglo-Saxon | 7.3 |
| Korean | } 2.83 |
| Spanish | |
| Porto Rican | |
| Russian | |
| Filipino | |

| Physical defects due to "ignorance": | | Per Cent |
|--------------------------------------|--|----------|
| 1. Poor teeth ----- | | 62.8 |
| 2. Adenoids and tonsils ----- | | 21.8 |
| 3. Eye defects ----- | | 11.0 |
| 4. Defective hearing ----- | | .25 |
| 5. Enlarged glands ----- | | .09 |
| 6. Skin ----- | | .73 |
| 7. Poor nutrition ----- | | 13.0 |
| 8. Not vaccinated ----- | | 16.0 |

Follow-up work:

Of 971 eye cases, 438 fitted with glasses or cured.

Of 1,775 throat cases, 260 were operated on.

Of 5,111 teeth cases, 190 were cared for.

Of 1,307 not vaccinated, all but 25 were vaccinated.

One nurse and one doctor, the Palama Settlement and Children's Hospital made this follow-up work possible. I quote this report, for the follow-up work is important. Mere statistical study of our school children is ridiculous and too seldom is "follow-up" work a part of school medical inspection, outside of contagious diseases. The working day of both doctor and nurse must often have surpassed the limit of eight hours to accomplish this volume of work.

The milk inspection in Hawaii is under federal and territorial laws, so that a universal yearly tuberculin test is used. In addition, pasteurization by the holding process for twenty minutes at 145° is practiced in Honolulu. The small dairy is the health menace there, as elsewhere. When visiting the largest milk plant, we found an ice cream plant adjacent, fresh oranges, lemons and pineapples furnishing the flavors, with no idea what a "homogenizer" meant on the part of the owner. In the pasteurizing room we found an electric pasteurizer "flash method" in use for bulk milk, and the "holding process" for bottled milk, a modern bottling and capping apparatus, and we were glad to learn that the electric pasteurizer will disappear when new apparatus en route shall have arrived.

For tuberculosis cases the territory has, in Honolulu, an excellent hospital, for free and pay-patients, with a special building for children and also an excellent corps of district nurses; and there is a special visiting nurse for tuberculosis on Hawaii and Maui. Twenty-six physicians are employed as government physicians, \$20,760 being spent on salaries.

The territory of the Hawaiian Islands, with a population of 228,771, excluding 8,852 in the military and navy, spends \$417,942 on public health: on leprosy, \$184,353; insanity, \$54,950; tuberculosis, \$50,000; for rat eradication, \$9,425; for mosquito work, \$12,500; and for quarantine, \$19,231.

The question of an improved water supply in Honolulu is under active consideration, and when settled will secure for the city an ideal reputation as a modern health and tourist resort. In health protection, a community gets what it pays for, and the Hawaiian Islands, standing as they do, at the western gateway of our nation, with federal and territorial public health work so active and alert, are meeting intelligently and efficiently as difficult health problems as those presenting themselves to any other American commonwealth.

DECEMBER REPORT OF PLAGUE SUPPRESSIVE MEASURES.

By C. L. WILLIAMS, Passed Assistant Surgeon, United States Public Health Service,
in Charge Joint Federal and State Plague Suppressive Measures.

During the month of December, 1916, the continued good weather permitted the placing of large amounts of poisoned grain with good results. Numerous inspections of infected territory has shown a noticeable decrease in squirrels since the end of the summer. While there are still spots where squirrels are in considerable numbers, the majority of the lands inspected are practically free of them, excepting the northern portion of San Mateo County, where there has been found a fairly heavy, though scattered and largely colonized, infestation. It is expected that this month will be the last in which poisoned grain can be used to any great extent until next summer. The work will be carried on with the use of carbon bisulphide and other means of suffocation in the burrows.

On account of the unexpectedly heavy infestation discovered on inspection in the northern portions of San Mateo County, the fear has been entertained that plague infection might possibly extend up the peninsula to San Francisco, since it is already known to exist as far north as Redwood City. In view of this condition a request has been made of the Department of Public Health of the city of San Francisco that they take up the matter of destroying squirrels on land in the southern portion of San Francisco County where considerable squirrel infestation has been found. An additional field inspector has been stationed in San Mateo County and the work of squirrel extermination is being carried out as extensively as the limited funds at our disposal will allow.

The recent reduction in the federal funds available for this work has necessitated a reduction in the field force, and it is felt that what is left is inadequate to cover the large territory over which the work is being carried out.

During the month numerous evidences were received of the interest taken in many counties in the southern part of the state in the matter of squirrel eradication. In some of these counties there are squirrel eradication campaigns already under way, while in others considerable sums, often exceeding \$1,000 per month, are spent in bounties. In these latter cases it is believed that the money spent could be used to much better advantage if applied as salaries to inspectors armed with authority to enforce squirrel extermination.

Appended is a tabulation of the work done during the month of December, 1916:

Tabulated Report of Work Accomplished During December, 1916.

| | |
|--|-----------|
| Number of inspections and reinspections of lands | 2,407 |
| Acres inspected and reinspected | 1,054,897 |
| Acres treated with poisoned grain | 342,409 |
| Acres treated with waste ball method | 14,178 |
| Number of holes treated | 64,297 |

THE JANUARY MEETING OF THE STATE BOARD OF HEALTH.

The State Board of Health held its regular monthly meeting in Sacramento on January 6, 1917. There were present President George E. Ebright and Doctors Edward F. Glaser, Adelaide Brown, Robert A. Peers, and Wilbur A. Sawyer.

The board discussed public health legislation and placed its approval on the proposed acts creating state health districts and enabling communities to join together to form a local health district for the purpose of maintaining a health department under a full-time health officer. Approval was given to a number of other measures.

A resolution was passed that the ruling of the State Board of Health to the effect that sewage or sewage-polluted water shall not be used for irrigating vegetables shall not apply to the irrigation of sugar beets.

Permits were given to the cities of Escondido and Redlands and to the St. Helena Water Company to supply water for domestic purposes.

A permit was given to the city of San Diego to discharge sewage from Ocean Beach into False Bay near its outlet into the Pacific Ocean.

The board decided that the state tuberculosis subsidy should not be paid for any period during which the patient was not actually in a tuberculosis ward which is on the accredited list.

One nurse was granted a certificate as registered nurse through reciprocity. Twenty-one hospitals, having been inspected and found to meet the requirements of the board in full, were placed on the list of permanently accredited schools.

The foods and drug cases were heard and action taken. Citations had been sent in 126 cases of alleged violation of the foods and drugs acts. A committee consisting of the secretary of the board, the director of the Bureau of Foods and Drugs, and the attorney for the board, was appointed to investigate the handling of eggs by wholesalers with a view to determining why so many stale eggs were being sold as fresh eggs in violation of the law.

W. A. SAWYER, Secretary.

REPORT OF THE BUREAU OF ADMINISTRATION FOR DECEMBER, 1916.

W. A. SAWYER, M.D., Director.

MORBIDITY REPORTS.

GUY P. JONES, Morbidity Statistician.

Smallpox.

There were 10 cases of smallpox reported during December, seven of which occurred in Contra Costa County, a small outbreak having occurred in the county hospital at Martinez. Of the 10 cases reported, seven had never been successfully vaccinated, two had been vaccinated more than seven years preceding attack and one had been vaccinated within seven years preceding attack.

Typhoid Fever.

Typhoid fever shows a slight increase for December. This is due to an outbreak in the San Pablo Canyon of Contra Costa County. There were forty-two cases reported from a construction camp in this canyon.

Epidemic Cerebrospinal Meningitis.

Seven cases of this disease were reported during December. There were three cases reported during November.

Poliomyelitis.

Twenty-one cases of this disease were reported during December, as against twenty-five during November and twenty-one during October. Seven of the cases reported during December occurred in San Francisco and four were in Los Angeles County; the remaining 11 cases occurred in Oakland, Amador, Marin, San Bernardino, San Luis Obispo, Santa Clara, Tehama, Ventura and Yuba counties.

Malaria.

Twenty-three cases of malaria were reported during December, the decrease being normal for this season of the year. These twenty-three cases were scattered throughout thirteen counties of the state, most of them being reported from Sacramento and San Joaquin valleys.

Scarlet Fever, Measles, Chickenpox, Mumps and Whooping Cough.

Scarlet fever showed a considerable diminution during December, there having been but 395 cases reported as against 559 reported during November. Measles showed a slight increase. Chickenpox remains about stationary, as also mumps and whooping cough.

Diphtheria.

Diphtheria shows a slight decrease, there having been 283 cases reported during December, as against 327 for November.

Venereal Diseases.

Syphilis and gonorrhea continue to be reported more thoroughly than before. There were 115 cases of syphilis reported during December and 49 cases of gonorrhea.

Tuberculosis.

Five hundred and twelve cases of tuberculosis were reported during December.

Leprosy.

Two cases of leprosy were reported during December.

The following table shows the number of cases of communicable diseases reported during the month:

| | | | |
|---|-----|-----------------------------|-----|
| Smallpox ----- | 10 | Chickenpox ----- | 437 |
| Typhoid Fever ----- | 97 | Erysipelas ----- | 39 |
| Epidemic Cerebrospinal Meningitis ----- | 7 | Mumps ----- | 331 |
| Poliomyelitis ----- | 21 | Pneumonia ----- | 287 |
| Malaria ----- | 23 | Tuberculosis ----- | 512 |
| Pellagra ----- | 1 | Whooping Cough ----- | 73 |
| Scarlet Fever ----- | 395 | Anthrax ----- | 1 |
| Measles ----- | 492 | German Measles ----- | 3 |
| Diphtheria ----- | 283 | Leprosy ----- | 2 |
| Dysentery ----- | 2 | Tetanus ----- | 2 |
| Gonorrhea ----- | 49 | Trachoma ----- | 15 |
| Syphilis ----- | 115 | Ophthalmia Neonatorum ----- | 2 |

SANITARY INSPECTIONS.

EDWARD T. ROSS, State Sanitary Inspector.

During the month a sanitary survey was made of some 45 camps or farms located in the delta region west of Stockton. In all of the camps visited insanitary conditions were found, due chiefly to the dilapidated and filthy condition of the privies, and to the improper disposal of waste water, garbage, rubbish, etc. A sanitary survey was also made of the city of Tracy, including the water supply and sewage disposal systems, as well as food supply places, hotels, stables, laundries, etc.

In addition to the sanitary surveys eighteen sanitary reports covering summer resorts, towns, slaughter houses, etc., were submitted.

Summary of Inspections.

| | |
|---------------------------------|-----|
| Towns inspected ----- | 2 |
| Camps or farms inspected ----- | 45 |
| Miscellaneous inspections ----- | 67 |
| Total ----- | 114 |

Sanitary Reports Submitted.

| | |
|-------------------------------|----|
| Towns ----- | 3 |
| Summer resorts ----- | 12 |
| Slaughter houses ----- | 2 |
| Sewage disposal systems ----- | 1 |
| Total ----- | 18 |

REPORT OF THE BUREAU OF COMMUNICABLE DISEASES FOR DECEMBER, 1916.

By JAMES G. CUMMING, M.D., Director.

Eighty Field Investigations in the Year of 1916.

In changing the name of this bureau about a year ago from the State Hygienic Laboratory to the Bureau of Communicable Diseases the State Board of Health anticipated an increase in the number of epidemiological investigations. This anticipation has been realized, inasmuch as 81 such investigations were made during 1916. The number from month to month has gradually increased there having been 15 separate investigations during December, involving 57 cases of communicable diseases. These epidemiological investigations of communicable diseases, corroborated in many instances by laboratory work, have already accomplished much in the conservation of public health. They include either epidemics or isolated cases of bacillary dysentery, typhoid fever, hookworm infection, poliomyelitis, smallpox, scarlet fever, diphtheria, malaria, rabies, spotted fever, and typhus fever.

Typhus in a Mexican Immigrant at Clovis.

In a report of a case of typhus in a Mexican at Clovis it was stated that the patient had left El Paso about a month previous for Chicago, Illinois, and had arrived at Clovis, California, December 4, 1916. It was further reported that the case had arrived in company with about 20 other Mexicans; that they were all louse-infested, and had been deloused under the supervision of the local physician by kerosene baths and changes of clothing. An investigation by the bureau showed that the case had come direct from El Paso to Clovis, and from there was sent immediately to the county hospital and had not gone by way of Chicago. Through an interpreter it was learned that the patient had first become ill in El Paso, about 12 days before arriving at Clovis. When the patient was admitted to the hospital she was in a condition of profound stupor, temperature 104°, pulse 115. The diagnosis of typhus fever was based upon the presence of a petechial rash which did not disappear on pressure, and the presence of many lice—"six to ten were removed with every stroke of the razor when the head was shaved." The pulse rate was high in proportion to the temperature and the fever terminated by crisis on the fourteenth day. There was a gradual fading of the skin lesions, which was complete on the twelfth day after the crisis.

The father of the patient stated that the Mexican railroad coaches were louse-infested, and that his family had become lousy during their six weeks journey by rail from Mexico City to Juarez. Upon arriving at Juarez they were deloused by a soap and water bath and a steaming of their clothing, before emigrating to the United States. In the opinion of the father the family were free from lice upon entering El Paso. Here, however, they remained at a cheap hotel for 10 days, where the patient developed typhus fever. Upon arrival in California the patient, her family and associates were louse-infested.

The investigation showed that this case of typhus fever was contracted outside of California and that the patient became ill in El Paso,

Texas, where the patient's family contend reinfestation took place. The patient was brought direct from El Paso, Texas, to Clovis, California, a trip of two days by railroad.

Under the supervision of the local health officer, the eighteen contacts were deloused. There have been no secondary cases.

Poliomyelitis at Avila.

In referring to a report by Assistant Surgeon Baughman on his investigation of an outbreak of poliomyelitis at Avila, California, in August and September, last, the United States Public Health Service in the Public Health Report for November 24, 1916, states: "The factors which operate against the obtaining of complete records of many diseases are illustrated by the following incident." Thereupon followed Dr. Baughman's report.

A representative of this bureau on December 11 and 12, 1916, made an investigation of this outbreak and reported: That as far as can be ascertained, the sequence of the Avila cases was as follows:

| | | | |
|---|----------|-------|-------------|
| 1 | H. B. W. | onset | August 1 |
| 2 | T. W. | onset | August 15 |
| 3 | E. G. S. | onset | August 23 |
| 4 | C. M. | onset | August 25 |
| 5 | W. S. | onset | September 1 |

These cases had been diagnosed as follows: (1) Gastro-enteritis; (2) no physician having been in attendance; (3) typhoid fever; (4) gastro-enteritis; (5) pneumonia.

A Mrs. X., accompanied by her three children, had arrived in Avila from New York City about July 18th, and Mrs. X. had reported that her 4-year-old daughter had died in San Pedro on July 13th of a disease diagnosed by a local San Pedro physician as croupous pneumonia, although the child had developed high fever, delirium, head retraction and paralysis of lower limbs.

The mother of the first alleged case of poliomyelitis which appeared in Avila and which had had its onset August 1st, had traveled by stage from San Luis Obispo to Avila and had sat alongside of Mrs. X. and her two other children all the way. On entering her home she had immediately picked up and caressed her infant and her babe had become ill and paralyzed about 10 days to two weeks thereafter.

Case No. 2 had again resumed his delivery of milk to the several homes in which alleged cases of poliomyelitis afterward occurred. Case No. 2 had been delivering milk in the house of case No. 1 before he became ill and he had resumed his delivery of milk to the several homes in which cases Nos. 4 and 5 occurred within less than two weeks after the onset of his illness, at which time a distinct paralysis of his right arm was still noticeable.

In the case of Mrs. X. and her family, no health certificate had been demanded at the time of her departure from New York City nor while en route to Avila, although she came from a district in New York City known at the time to have been affected with poliomyelitis. This is readily explained by the fact that on the date of her departure from New York City the health authorities at that place had not as yet required such certificate.

The San Luis Obispo County health officer, in whose county Avila is situated, stated that he had not been apprised of any prospective new

arrivals into his jurisdiction from a poliomyelitis-infected district until July 19th, and again on July 31st, each such notification reporting to him the prospective arrival of two different parties from New York City.

Our representative further stated that the four cases at Avila and the one at Port San Luis were reported to have had high temperatures, cervical pain with more or less delirium, also head retraction and paralysis followed by muscular atrophy of one limb at least, and that he is inclined to a diagnosis of acute poliomyelitis in each of the five cases.

One might at first be inclined to criticize the several medical attendants who made the reported diagnoses, but it must be borne in mind that all of the cases occurred at a distance of 10 or more miles from the nearest center of medical service and that the charge for visits made at such a distance was proportionately high, thereby practically prohibiting more than one, or at the most, two visits. A case of illness can not always be diagnosed at the first visit, and more especially does this apply to the early diagnosis of a suspected poliomyelitis case, because aside from the great difficulty of making a differential clinical diagnosis early in the disease, the attending physician may be further hampered by lack of ready means of making laboratory tests.

In view of the fact that the local county health officer had not been apprised of the arrival of Mrs. X. and family from New York City, he can not be held responsible for the series of cases of apparent poliomyelitis which arose shortly after her arrival in Avila.

Similarly in the case of any small epidemic of disease, especially when the cases are differently diagnosed, the state health authorities are apt to remain unnotified. In view of the apparent difficulty of diagnosing these several cases of probable poliomyelitis, attention is called to the fact that neural involvement may manifest itself by only a fleeting paralysis and that in frank cases of paralysis (as in the Avila cases) the physician should not hesitate to make at least a provisional diagnosis of poliomyelitis.

Gastro-intestinal and respiratory involvements common in the Avila series of cases are common symptoms in poliomyelitis, and in anticipation of an epidemic of this disease during the coming summer physicians should be on their guard for definite paralysis, and when such are found institute quarantine measures and thereby limit, during the winter months, as much as possible the spread of the virus, which shows its highest virulence during the summer. If the number of poliomyelitis carriers both in children and in adults can be kept down by the recognition, reporting and quarantining of cases, during the winter, it is reasonable to assume that the number of summer cases will be reduced.

Sanitary Survey at Whittier.

A sanitary survey of the city of Whittier was made by the bureau in compliance with a request made by the Chamber of Commerce and Board of Health of that city. Several cities of California have requested that such surveys be made, and it is certain that the interest in such investigations is constantly growing.

The bureau aims to follow up such surveys by brief return visits in order to determine the results accruing from the carrying out of the recommendations.

Typhoid Epidemic of the San Pablo Dam Construction Camp.

An outbreak of typhoid in which 42 cases occurred was reported from the San Pablo Canyon, in Contra Costa County. It was found that the source of infection for these cases was in a polluted stream, although a pure water supply was furnished to the laborers in the sanitary camp where the epidemic occurred. A more detailed report will appear in the March Bulletin.

Division of Biological Examinations.

Summary of Examinations Made in the California State Hygienic Laboratory During the Month of December, 1916.

| Condition suspected | Positive | Negative | Inconclusive | Total |
|---|----------|----------|--------------|--------------|
| Main Laboratory at Berkeley— | | | | |
| Anthrax ----- | 1 | 4 | | 5 |
| Diphtheria (diagnosis) ----- | 27 | 32 | 10 | 69 |
| Diphtheria (release) ----- | 15 | 27 | 3 | 45 |
| Gonococcus infection ----- | 1 | 10 | | 11 |
| Hookworm ----- | | 652 | | 652 |
| Malaria ----- | | 1 | | 1 |
| Rabies ----- | 7 | 10 | | 17 |
| Syphilis (Wassermann test) ----- | 18 | 163 | 4 | 185 |
| Tuberculosis (sputum examinations) ----- | 8 | 17 | | 25 |
| Typhoid (Widal test) ----- | 2 | 22 | 6 | 30 |
| Typhoid (excreta) ----- | 1 | 26 | | 27 |
| Miscellaneous ----- | 3 | | 1 | 4 |
| | | | | 1,071 |
| Northern Branch at Sacramento— | | | | |
| Diphtheria (diagnosis) ----- | 13 | 57 | | 70 |
| Diphtheria (release) ----- | 11 | 23 | 1 | 35 |
| Malaria ----- | 1 | 5 | | 6 |
| Tuberculosis (sputum examinations) ----- | 5 | 18 | | 23 |
| Typhoid (Widal test) ----- | | 12 | 2 | 14 |
| | | | | 148 |
| San Joaquin Valley Branch at Fresno— | | | | |
| Diphtheria (diagnosis) ----- | 7 | 17 | 2 | 26 |
| Diphtheria (release) ----- | 22 | 33 | | 55 |
| Malaria ----- | 1 | 1 | | 2 |
| Tuberculosis (sputum examinations) ----- | 1 | 12 | | 13 |
| Typhoid (Widal test) ----- | | 3 | | 3 |
| | | | | 99 |
| Southern Branch at Los Angeles— | | | | |
| Diphtheria (diagnosis) ----- | 17 | 36 | 10 | 63 |
| Diphtheria (release) ----- | 10 | 5 | 2 | 17 |
| Gonococcus infection ----- | | 1 | | 1 |
| Tuberculosis (sputum examinations) ----- | 2 | 20 | | 22 |
| Typhoid (Widal test) ----- | 4 | 2 | 1 | 7 |
| | | | | 110 |
| Total number of examinations ----- | | | | 1,428 |

Division of Preventive Therapeutics.

*Pasteur Treatment for the Prevention of Rabies by the State Hygienic Laboratory
During the Month of December, 1916.*

| | Treatment commenced | Treatment completed |
|--|------------------------|------------------------|
| Main Laboratory at Berkeley----- | 1 | 1 |
| Northern Branch at Sacramento----- | 0 | 0 |
| San Joaquin Valley Branch at Fresno----- | 0 | 0 |
| Southern Branch at Los Angeles----- | 0 | 0 |
| Laboratory of Sacramento Board of Health, by deputized bacteriologist----- | 0 | 0 |
| Laboratory of San Francisco Board of Health, by deputized bacteriologist----- | 0 | 0 |
| Laboratory of Los Angeles Board of Health, by deputized bacteriologist----- | 0 | 0 |
| Laboratory of San Diego City Board of Health, by depu- tized bacteriologist----- | 0 | 0 |
| Laboratory of Letterman General Hospital, Presidio, by deputized bacteriologist----- | 0 | 0 |
| Laboratory of United States Naval Hospital, Mare Island, by deputized bacteriologist----- | 0 | 0 |
| Totals----- | 1 | 1 |

Distribution of Laboratory Products.

*Vaccine for the Prevention of Typhoid Fever Issued by the State Hygienic Labora-
tory During the Month of December, 1916.*

| | |
|--|-----|
| Number of physicians to whom vaccine was sent----- | 9 |
| Number of complete treatments sent----- | 165 |

*Ophthalmia Necnatorum Prophylactic Outfits Distributed During the Month of
December, 1916.*

| | |
|--|-----|
| Number of outfits, containing two ampoules each, issued----- | 233 |
|--|-----|

Public Health Instruction.

Participation in Instruction in Public Health During December, 1916.

| | |
|---|----|
| Main Laboratory at Berkeley— | |
| Bacteriological instruction outfits sent out----- | 31 |
| Bacteriological instruction outfits in use----- | 30 |
| Lectures by the director----- | 3 |

Division of Epidemiological Investigation.

*Epidemiological Investigations and Other Special Investigations During
December, 1916.*

| | |
|--|----|
| Main Laboratory at Berkeley— | |
| A case of poliomyelitis at Oakland. | |
| A case of poliomyelitis at Marysville, and conference with the health officers of Marysville, Chico, Redding and Willows. | |
| An investigation of the cases of poliomyelitis at Avila during August and September. | |
| A case of chickenpox in Oakland. | |
| A sanitary survey of Whittier. | |
| An inspection of typhus quarantine camps on the several railroads. | |
| A case of poliomyelitis at Mill Valley. | |
| A case of poliomyelitis at Oakland. | |
| An investigation of companies importing Mexican laborers. | |
| A case of poliomyelitis at Lagunitas. | |
| Conference with railroad officials and importing companies relative to the enforcement of typhus regulations. | |
| A case of poliomyelitis at San Luis Obispo. | |
| Continuation of hookworm survey. | |
| A case of botulism at Corning. | |
| An epidemic of typhoid fever at the San Pablo Dam Construction Camp. | |
| Total number of investigations----- | 15 |

REPORT OF THE BUREAU OF VITAL STATISTICS.

GEORGE D. LESLIE, Director.

Infant Mortality, by Days, Weeks and Months.

Analysis of statistics on deaths of infants under one year of age published by the Federal Census Bureau, the latest figures available from detailed census reports being for the calendar year 1914, indicates that about one-sixth of all deaths of infants occur immediately after birth, or in the very first day of life, altogether one-third in only the first week of existence, and approximately one-half when less than one month old.

Comparative data are presented herewith for the registration area comprising in 1914 altogether 66.8 per cent of the population of the United States, for California, and for the three cities in this state of 100,000 population or over at the last Federal census:

Per Cent Distribution of Total Deaths Under One Year of Age, 1914.

| | U. S. registra- tion area | California | Los Angeles City | Oakland | San Fran- cisco |
|---------------------------------|---------------------------------|------------|---------------------|---------|--------------------|
| Totals ----- | 155,075 | 3,956 | 614 | 227 | 630 |
| Total per cent ----- | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Less than 1 day ----- | 14.6 | 16.1 | 17.3 | 15.0 | 17.3 |
| 1 day ----- | 5.0 | 6.3 | 7.3 | 8.8 | 5.6 |
| 2 days ----- | 3.7 | 3.8 | 5.7 | 2.6 | 3.6 |
| 3 to 6 days ----- | 7.3 | 7.7 | 6.3 | 9.3 | 8.4 |
| Less than 1 week ----- | 30.6 | 33.9 | 36.6 | 35.7 | 34.9 |
| 1 week ----- | 6.5 | 7.0 | 5.9 | 7.5 | 5.4 |
| 2 weeks ----- | 4.7 | 4.5 | 5.1 | 4.9 | 3.0 |
| 3 weeks but less than 1 month-- | 3.7 | 3.0 | 3.6 | 4.8 | 3.7 |
| Less than 1 month ----- | 45.5 | 48.4 | 51.2 | 52.9 | 47.0 |
| 1 month ----- | 9.2 | 9.6 | 8.6 | 6.6 | 9.4 |
| 2 months ----- | 7.6 | 7.6 | 8.6 | 6.2 | 6.5 |
| 3 to 5 months ----- | 16.6 | 15.2 | 14.5 | 15.4 | 15.1 |
| 6 to 8 months ----- | 11.9 | 11.0 | 9.3 | 9.7 | 11.9 |
| 9 to 11 months ----- | 9.2 | 8.2 | 7.8 | 9.2 | 10.1 |

This table shows, in brief, that in 1914 the per cent of all deaths among infants under one year of age occurring in the very first day of life was only 14.6 for the United States registration area as compared with 16.1 for California, being as great as 17.3 for both Los Angeles City and San Francisco, but merely 15.0 for Oakland. The per cent of all infantile deaths occurring in the first week of existence was only 30.6 for the entire registration area against 33.9 for California, being no less than 33.6 for Los Angeles City, 35.7 for Oakland, and 34.9 for San Francisco. The per cent of total infant mortality at the age of less than one month was only 45.5 for the entire registration area as compared with 48.4 for California, being as great as 52.9 for Oakland and 51.2 for Los Angeles City against merely 47.0 for San Francisco.

Data from state tabulations indicate that infant mortality has been decreasing in California in recent years, having been appreciably less for this state in 1915 than in 1914. Later figures than are available from census reports as yet may therefore present a more favorable showing for California in comparison with the whole registration area of the United States than appears from the preceding statistics for the calendar year 1914. However, there is evidently ample opportunity in this state as in the whole country for human sympathy to be exerted toward saving pretty babies.

Births, Deaths and Marriages for November.*

State Totals and Annual Rates. The following table shows for California as a whole, the birth, death and marriage totals for the current and preceding months in comparison with those for the corresponding months of last year, as well as the annual rates per 1,000 population represented by the totals for the current and preceding months. The rates are based on an estimated midyear population of 2,946,347 for California in 1916, the estimate having been made by the Census Bureau method with slight modifications.

Birth, Death and Marriage Totals, with Annual Rates per 1,000 Population, for Current and Preceding Months, for California: November.

| Month | Monthly total | | Annual rate per 1,000 population 1916 |
|-----------------|---------------|-------|--|
| | 1915 | 1916 | |
| November— | | | |
| Births ----- | 4,100 | 4,091 | 17.0 |
| Deaths ----- | 3,459 | 3,448 | 14.3 |
| Marriages ----- | 2,666 | 3,050 | 11.0 |
| October— | | | |
| Births ----- | 4,235 | 4,188 | 17.0 |
| Deaths ----- | 3,054 | 3,181 | 12.2 |
| Marriages ----- | 2,818 | 2,789 | 11.6 |

*NOTE.—The present report is for the month preceding but one. This order must be followed, because of the publication of the Bulletin during the early part of the month, before the tabulation of records for the preceding month is completed.

Very little difference is shown between the birth and death totals for November, 1916, and November, 1915, while the marriage total is considerably smaller this year than last. The birth registration for November exceeded the death total by 641, or 18.5 per cent.

Length of Residence. The length of residence in California for the 3,459 decedents in November was as follows: Under 1 year, 120, or 3.5 per cent; 1 to 9 years, 620, or 17.9 per cent; 10 years and over, 1,564, or 45.2 per cent; life, 874, or 25.3 per cent, and unknown, 281, or 8.1 per cent.

County Marriage Totals. The counties showing the highest marriage totals for the month were as follows: San Francisco, 537; Los Angeles, 514; Alameda, 241; Orange, 112; Sacramento, 107; San Bernardino, 103; Fresno, 102; San Diego, 99; San Joaquin, 85; Santa Clara, 74; Kern, 52; and Marin, 41. The aggregate for San Francisco and other bay counties was 858 against 626 for Los Angeles and Orange counties together.

County Birth and Death Totals. Exclusive of stillbirths in both cases, the birth and death totals for the month were as follows for the leading counties, arranged in decreasing order of birth registration:

| County | Births | Deaths | County | Births | Deaths |
|----------------------|--------|--------|--------------------|--------|--------|
| Los Angeles ----- | 1,011 | 851 | Riverside ----- | 92 | 46 |
| San Francisco ----- | 570 | 609 | San Joaquin ----- | 84 | 118 |
| Alameda ----- | 382 | 309 | Tulare ----- | 84 | 35 |
| Fresno ----- | 221 | 109 | Kern ----- | 76 | 52 |
| Sacramento ----- | 145 | 137 | Orange ----- | 70 | 41 |
| Santa Clara ----- | 133 | 141 | Sonoma ----- | 62 | 68 |
| San Diego ----- | 118 | 135 | Contra Costa ----- | 58 | 35 |
| San Bernardino ----- | 113 | 83 | Ventura ----- | 49 | 29 |

City Birth and Death Totals. Birth and death totals, exclusive of stillbirths, are presented similarly for the principal California cities below:

| City | Births | Deaths | City | Births | Deaths |
|---------------------|--------|--------|----------------------|--------|--------|
| Los Angeles ----- | 701 | 548 | Berkeley ----- | 47 | 38 |
| San Francisco ----- | 570 | 609 | Stockton ----- | 42 | 83 |
| Oakland ----- | 269 | 178 | Long Beach ----- | 35 | 45 |
| Sacramento ----- | 116 | 112 | Santa Barbara ----- | 34 | 26 |
| San Diego ----- | 83 | 101 | Riverside ----- | 32 | 25 |
| Fresno ----- | 63 | 37 | Bakersfield ----- | 31 | 36 |
| San Jose ----- | 59 | 41 | Alameda ----- | 30 | 23 |
| Pasadena ----- | 55 | 43 | San Bernardino ----- | 30 | 27 |

Geographic Divisions (Infant Mortality). The following table presents data for geographic divisions to show in comparison with total births and deaths the number of deaths under one year as some indication of conditions with reference to infant mortality in different portions of the state:

Total Births and Deaths, with Deaths Under One Year, for Geographic Divisions: November.

| Geographic division | Total live births | Total deaths all ages | Deaths under one year |
|----------------------------------|-------------------|-----------------------|-----------------------|
| The State ----- | 4,100 | 3,459 | 316 |
| Northern California— | | | |
| Coast counties ----- | 162 | 180 | 7 |
| Interior counties ----- | 225 | 172 | 11 |
| Central California— | | | |
| San Francisco ----- | 570 | 609 | 41 |
| Alameda County ----- | 382 | 309 | 21 |
| Other bay counties ----- | 108 | 85 | 10 |
| Coast counties ----- | 263 | 221 | 24 |
| Interior counties ----- | 822 | 625 | 84 |
| Southern California— | | | |
| Los Angeles City ----- | 701 | 548 | 47 |
| Rest of Los Angeles County ----- | 310 | 303 | 25 |
| Other counties ----- | 557 | 407 | 46 |

Cause of Death. The following table shows the classification of deaths in California for the current month, in comparison with the preceding month:

Deaths from Certain Principal Causes, with Proportion per 1,000 Total Deaths, for Current and Preceding Month, for California: November.

| Cause of death | Deaths November | Proportion per 1,000 | |
|--|--------------------|----------------------|---------|
| | | November | October |
| All causes ----- | 3,459 | 1,000.0 | 1,000.0 |
| Typhoid fever ----- | 13 | 3.8 | 6.2 |
| Malarial fever ----- | 2 | 0.6 | 3.0 |
| Smallpox ----- | 2 | 0.6 | 0.3 |
| Measles ----- | 4 | 1.2 | 0.3 |
| Scarlet fever ----- | 3 | 0.9 | 0.7 |
| Whooping-cough ----- | 7 | 2.0 | 2.6 |
| Diphtheria and croup ----- | 16 | 4.6 | 6.9 |
| Influenza ----- | 31 | 9.0 | 5.6 |
| Other epidemic diseases ----- | 11 | 3.2 | 2.6 |
| Tuberculosis of lungs ----- | 358 | 103.5 | 106.4 |
| Tuberculosis of other organs ----- | 47 | 13.6 | 17.7 |
| Cancer ----- | 225 | 65.0 | 83.5 |
| Other general diseases ----- | 154 | 44.5 | 43.9 |
| Meningitis ----- | 7 | 2.0 | 4.9 |
| Other diseases of nervous system ----- | 256 | 74.0 | 65.8 |
| Diseases of circulatory system ----- | 740 | 213.9 | 209.2 |
| Pneumonia and broncho-pneumonia ----- | 358 | 103.5 | 67.1 |
| Other diseases of respiratory system ----- | 66 | 19.1 | 14.4 |
| Diarrhea and enteritis, under 2 years ----- | 61 | 17.6 | 22.6 |
| Diarrhea and enteritis, 2 years and over ----- | 32 | 9.2 | 13.8 |
| Other diseases of digestive system ----- | 142 | 41.1 | 52.1 |
| Bright's disease and nephritis ----- | 276 | 79.8 | 73.3 |
| Childbirth ----- | 36 | 10.4 | 7.5 |
| Diseases of early infancy ----- | 142 | 41.0 | 39.3 |
| Suicide ----- | 68 | 19.7 | 22.3 |
| Other violence ----- | 281 | 81.2 | 87.4 |
| All other causes ----- | 121 | 35.0 | 40.6 |

In November there were 740 deaths, or 21.4 per cent of all, from diseases of the circulatory system; 424, or 12.3 per cent from diseases of the respiratory system (pneumonia); and 405, or 11.7 per cent, from the various forms of tuberculosis. Heart disease as well as pneumonia surpassed tuberculosis for the month of November.

Other notable causes of death for the month were: Violence, 349; Bright's disease and nephritis, 276; diseases of the digestive system, 235; cancer, 225; and epidemic diseases, 89.

The deaths from epidemic diseases were as follows: Influenza, 31; diphtheria, 16; typhoid fever, 13; whooping cough, 7; and all other epidemic diseases, 22.

The deaths from the three leading epidemic diseases reported for the month were distributed by counties as follows:

| Influenza | | Diphtheria | | Typhoid fever | |
|----------------|----|---------------|----|---------------|----|
| Contra Costa | 1 | Alameda | 1 | Alameda | 1 |
| Fresno | 2 | Kings | 2 | Contra Costa | 1 |
| Imperial | 1 | Los Angeles | 3 | Inyo | 1 |
| Kings | 1 | Sacramento | 1 | Lake | 1 |
| Lake | 1 | San Francisco | 7 | Los Angeles | 3 |
| Los Angeles | 2 | San Joaquin | 2 | Riverside | 1 |
| Monterey | 1 | | | Sacramento | 1 |
| Sacramento | 3 | Total | 16 | San Diego | 1 |
| San Bernardino | 1 | | | San Joaquin | 1 |
| San Diego | 6 | | | Santa Barbara | 1 |
| San Joaquin | 1 | | | Santa Clara | 1 |
| Santa Clara | 1 | | | | |
| Sonoma | 2 | | | Total | 13 |
| Stanislaus | 2 | | | | |
| Sutter | 1 | | | | |
| Tehama | 2 | | | | |
| Tulare | 2 | | | | |
| Yolo | 1 | | | | |
| Total | 31 | | | | |

Sex, Race and Nativity. The proportion of the sexes among the 3,459 decedents in November was: Male, 2,126, or 61.5 per cent, and female, 1,333, or 38.5 per cent.

The race distribution of decedents was: White, 3,268, or 94.5 per cent of all; Chinese, 68; Japanese, 63; Negro, 47; and Indian, 13.

The 3,268 white decedents were classified by nativity as follows: California, 810, or 24.8 per cent; other states, 1,304, or 39.9 per cent; foreign countries, 1,080, or 33.0 per cent, and unknown, 74, or 2.3 per cent.

Age Periods. The 3,459 deaths reported for the month were distributed by age periods as follows: Under 1 year, 316, or 9.1 per cent; 1 to 4 years, 110, or 3.2 per cent; 5 to 9 years, 33, or 3.2 per cent; 10 to 19 years, 109, or 3.2 per cent; 20 to 29 years, 241, or 7.0 per cent; 30 to 39 years, 329, or 9.5 per cent; 40 to 49 years, 420, or 12.1 per cent; 50 to 59 years, 478, or 13.8 per cent; 60 to 69 years, 543, or 15.7 per cent; 70 years and over, 880, or 25.4 per cent.

The 316 deaths under 1 year, in comparison with the 4,100 live births reported for the month, represent an infant mortality ratio of 77 per 1,000 births.

REPORT OF THE BUREAU OF TUBERCULOSIS FOR JANUARY, 1917.

E. L. M. TATE, Director.

Two valuable educational acquisitions have been made by the bureau this last month, one through the efforts of the California Association for the Study and Prevention of Tuberculosis' rural nurse, and the other through Dr. Peers' Primer for School Children. It is to be regretted that the high cost of printing and the bureau's small budget makes it impossible to place this valuable little book in the hands of every school child in the state. Monterey County has been visited by the rural nurse, and a plan is now in process of being put into operation for three clinics at various locations in the county, where school children can go and have minor defects, such as adenoids, tonsils, and defective teeth, remedied.

That the county plan for caring for the indigent tuberculous is the most feasible one seems to evidence itself in the fact that 26 Minnesota county hospitals are being built, the state paying a subsidy of \$5 per week, per patient, instead of \$3 as is done here. A new county hospital has just been opened near Indianapolis, and eight counties in Illinois have just voted for county tuberculosis hospitals, so that California must mark time if it is to keep up with the procession.

Three surveys are being made at present, one in Los Angeles, and two in San Francisco. Since no intensive survey has been made in this state except the one made by the Tuberculosis Commission in 1911, these ought to contain valuable information. The one in Los Angeles is being made of the Ann Street School District by a group of students from the University of Southern California, and the one in San Francisco on Telegraph Hill by the students from the Social Service School at the polyclinic; the other, the lodging house district south of Market, to be made by some men students from the University of California. Fifty per cent of the deaths from tuberculosis among men in this state occur among single men. This survey will show the occupation and points of contact with sources of infection. More and more does it become evident that dental care is a necessary part of the treatment of all tuberculosis hospitals. This fact was brought out at a conference recently held at the City and County Hospital in San Francisco. Ways and means were discussed as to the proper methods of raising money for a dental clinic, and for the necessary material, and the need for supplying plates for patients unable to buy them. The collection of waste paper was suggested, and then, Christmas week, a miracle happened. Mayor Rolph, acting as trustee for a generous donor, who had sent in money for the tuberculous, presented Dr. Brodrick with a check, and the patients now will be given long-needed dental care. Perhaps the buying of artificial teeth and the purchase of material for fillings is not so romantic to people who have to give Christmas baskets, but all the baskets in the world are of little avail if patients can not properly eat the food provided for them.

Additional diet kitchens are being added to all of the tuberculosis buildings in San Francisco. The mayor of San Francisco has been

authorized by the supervisors to appoint a committee of seven to report on a site for a sanatorium for early cases.

The bureau has a number of bills to be introduced during the legislature, the most important of which is a compulsory commitment law for careless consumptives who refuse to carry out the instructions given them by a doctor or nurse. Also, it is hoped that some provision will be made for the consumptive inebriate who can not be cared for in a county hospital. If Minnesota with the long cold winters can build twenty-six county tuberculosis hospitals with a subsidy of \$5 a week, California ought to be able to increase its bed capacity threefold.

Some talks were given by the director during the month at Hayward and to the nurses at the University of California Hospital.

Hospitals visited during the month:

San Francisco (3)

Fresno (2)

Sacramento

Tulare

The Kent bill has been amended to include a division in the Public Health Service with an advisory committee of ten members.

REPORT OF THE BUREAU OF SANITARY ENGINEERING FOR DECEMBER, 1916.

By C. C. GILLESPIE, C.E., Director.

The major propositions engaging the attention of the Bureau during the current month include a sanitary investigation of the properties of the Marin Municipal Water District, the investigation of a typhoid epidemic among the workmen on the San Pablo dam of the Peoples Water Company with Dr. J. C. Geiger, assistant director of the Bureau of Communicable Diseases, an extensive trip through the southern part of the state in connection with sewage disposal and water supplies at San Diego, Ventura, Paso Robles, Azusa and Duarte, a conference with the city council of Stockton on sewage disposal, and some special laboratory work on the identification of certain species of bacteria in the Sacramento River water at Sacramento, the destruction of which required large doses of chlorine and gave rise to production of considerable taste and odor in the tap water.

The problem confronted by the Marin Municipal Water District which has recently taken over the several companies supplying water to communities in Marin County relates to the protection of watershed lands in the vicinity of Mt. Tamalpais, aggregating nearly 11,000 acres, against contamination by thousands of hikers from the San Francisco Bay region. The main recommendations were that the hikers should be confined to well-defined areas by the construction of good trails and the development of attractive picnic grounds at certain spots conducive to clean picnicking and safe sewage disposal. At these places tables would be provided, and good sanitary privies and means for burning of papers and rubbish established. Other recommendations aim at good sanitation of the construction camps, protecting the workmen and consumers against the danger of workmen in the camps who may be suffering from typhoid or other water-borne diseases, some of whom, by reason of apparent good health, may be a menace to their fellow workmen. Grazing and chlorination of the water supplies were also considered in considerable detail.

The epidemic of typhoid fever, involving between forty and fifty workmen on the San Pablo dam, proved to be due to the use of the creek water at the construction camp solely for lavatory purposes. The camp buildings, dining rooms, club rooms, etc., are ideally constructed and maintained from sanitary standpoints, but the workmen on the dam half a mile above were not provided with toilet facilities. Accordingly, the watershed and the stream bottom became badly contaminated with excremental matter. The records indicate that there was an ambulatory typhoid carrier among the workmen on the dam. The first freshet brought down all this pollution past the raw water intake at the camp, and shortly thereafter typhoid appeared among the workmen. Examination of this water supply several weeks after the flushing had begun actually demonstrated the presence of three typhoid germs per c. c. Though the water was presumably used only for lavatory purposes, many of the workmen became infected simply through the water adhering to the lips and taken into the mouth when

washing the teeth or rinsing the mouth. Many of them also drank freely of the creek water, coming down with bad cases of typhoid. This experience well illustrates the dangers in contaminated waters against which the State Board of Health contends continuously, but which do not always lead to such disastrous epidemics as occurred in this instance.

The conference with the city council of Stockton had for its issue the question of prohibiting the discharge of the effluent of the so-called Castner septic tanks into the San Joaquin River. The Bureau has refused to approve the plans, and will not permit the discharge of this kind of effluent into the river.

The work on the bacterial flora of the lower Sacramento River confirms and adds to the fund of information gradually being accumulated elsewhere to the effect that the waters in long rivers and chlorinated waters contain a disproportionate number of anaerobic spore formers resembling the *B. coli* in the ordinary test and which might, therefore, be taken to indicate sewage contamination. One of the principal members of this spore-forming group at Sacramento was identified during the month as *B. welchii*. This organism occurs freely in soil and to some extent in milk and sewage. It is, therefore, not indicative of sewage contamination. In the laboratory it can be differentiated from the *B. coli* group quite satisfactorily by first enriching the growth by inoculating lactose broth tubes with the raw or chlorinated water and making smears on litmus lactose agar plates from those tubes in which gas is formed. The anaerobic spore formers will not develop on the surface of the plates. *B. coli*, however, will develop. In doubtful cases broth tubes are re-incubated from the doubtful colonies on the litmus lactose agar plates. This procedure is particularly important in chlorinated waters because of the fact that the spore formers will survive doses of chlorine sufficient to kill *B. coli* and hence typhoid. At Sacramento a dose of 2.6 pounds was found necessary to kill both *B. coli* and spore formers, whereas approximately 50 per cent of that dose was sufficient for the elimination of *B. coli*. The former dose produced chlorine tastes noticeable to many; the latter dose could not be detected.

SEWAGE DISPOSAL.

Applications for Permits Filed.

San Diego. To discharge sewage from Ocean Beach into the channel of False Bay near its mouth.

Pasadena. To discharge sewage onto the city farm and sludge into a wash adjoining the farm.

Permits Granted.

San Diego. To discharge the sewage of Ocean Beach after treatment in an Imhoff tank into the channel of False Bay near its mouth.

Plans Filed.

Livermore (Alameda County Tuberculosis Hospital). Plans for Imhoff tank and dosing tank, the sewage to be used for irrigation.

Stockton. Plans for Castner septic tanks, the effluent to be discharged into the San Joaquin River. The plans were later withdrawn.

Investigations, Inspections and Reports.

Stockton. December 14th. A conference was held regarding approval of discharge of effluent of Castner septic tanks into the San Joaquin River. The State Board of Health will require, as a minimum treatment of the sewage before discharge into the river, clarification as obtained in Imhoff tanks followed by complete disinfection.

Folsom. December 18th. A conference was held with the prison directors regarding the disposal of sewage at Folsom prison. At the present time this sewage is pumped onto sloping hillsides and much of it finds its way back into the river through the ravines. The prison directors are anxious to correct the evil and have instructed the State Engineer and this bureau to prepare plans for final treatment works so that an absolutely safe effluent can be admitted to the American River. In all probability the activated sludge type of treatment will be selected because of the requirement that there shall be minimum plant offense and the fact that the prison generates its own power so that the expense of the activated sludge process here would be very low.

Rodeo. December 18th. A complaint that sewage emptied onto tide flats between low tide and high tide constituted a nuisance was investigated; the justice of the complaint could not be substantiated.

Pinole. Acting on the demand of the bureau, the trustees have proceeded to repair the broken sewer by which sewage has been emptied into Pinole Creek, causing considerable offense.

Reedley. December 26th to 31st. The sprinkling filter recommended to the city by the bureau as one of its first official acts and recently completed was tested for efficiency of its performance. Results of the test, while not completed, indicate that the filter operation is wholly satisfactory, and that an effluent suitable for discharge into the Kings River is being delivered. The distribution of the sewage by the nozzles, which was one of the features of the design, is quite satisfactory. The tests were directed at testing the dosing tank to improve the uniformity of spray over the stone bed. The results of this test will probably appear in a later issue of the Bulletin.

San Diego. December 18th. That section of the city known as Ocean Beach is to be sewerred, and permission was asked to discharge the sewage, after treatment in an Imhoff tank, into False Bay. Investigation indicated that the general plan would be acceptable.

Paso Robles. December 14th. Engineers are preparing plans for an Imhoff tank, to be built within the next few months.

Santa Maria. December 4th. Inspection indicated that results suitable for local requirements are being obtained. Certain defects in the design of the tank continue to give some trouble from gas and solids rising into the flow channels.

Seal Beach. December 19th. This city proposes to install a sewer system within the coming year. The tentative plan is to treat the sewage in an Imhoff tank and discharge the effluent into a salt marsh to the north. Inspection indicates that such disposal will be satisfactory, at least for the present. If necessary in future, the effluent may be piped a few hundred feet to the ocean.

Whittier. December 19th. A septic tank here was converted into an Imhoff tank a few months ago. Following its renewal of operation, much trouble was experienced from extremely heavy scum formation, due to excessive gasification of the settled solids. In fact, there seemed to be no accumulation whatever of solids on the bottom. Recently about 700 pounds of lime were introduced to the sludge compartment to neutralize the carbonic acid which was thought to be the cause of the abnormal buoyancy of the solids. The experiment was quite successful and little trouble is now experienced.

WATER SUPPLIES.

Applications for Permits Filed.

Redlands. To continue to supply water to the inhabitants of Redlands and vicinity from wells within the city limits.

Permits Granted.

Escondido. To supply water to the city of Escondido from the existing pumping stations and wells near Escondido Creek.

Redlands. To continue to supply water for domestic purposes to the inhabitants of Redlands and vicinity from the existing twelve wells within the city limits.

St. Helena (St. Helena Water Company). To continue to supply water for domestic purposes to the inhabitants of the city of St. Helena from the St. Helena reservoir supplied by York Creek.

PLANS FILED—NONE.

Investigations, Inspections and Reports.

Sacramento. December 2d. Test of the chlorination was repeated. The chlorine dose was varied by 0.4 pound steps from one pound to three pounds, samples of the water being taken for free chlorine, odor, taste, turbidity and bacterial tests, thus determining the dose required to produce *B. coli* elimination without producing tastes. For the very muddy water prevailing at the time, about 200 parts per million, a dose of 1.7 pounds, appeared to be sufficient.

San Rafael (Marin Municipal Water District). December 4th, 11th and 13th. See general notes in preceding pages of this report.

Oakland (Alameda County Detention Home). December 9th. The water supply for this new home is derived from a new 400-foot drilled well in the West Oakland marshes, perforated below the 60-foot level. Analyses indicate that the water is highly contaminated and effected by salt and other mineral constituents.

Escondido. December 18th. Inspection was made of a hypochlorite treatment plant used by the Mutual Water Company. A dose of about five pounds per million gallons is being used. The city supply, derived from wells, appears to be well protected now against contamination.

Glendale. December 20th. This city derives its supply mainly from Verdugo Canyon, where seepage from an extensive gravel and sand area is developed. This area is coming to be thickly populated and the water

is dangerously contaminated as a result. Either this water is to be purified or a new supply will be developed by sinking wells in the upper end of the canyon.

San Luis Obispo. December 14th. Some difficulty has been experienced with the chlorinating apparatus recently installed, due to the meter float sticking and also to a certain amount of clogging in the lines. These machines require occasional thorough cleaning, which seems to have been overlooked here.

San Gabriel River and Fish Canyon Water. December 18th. Water from these streams supplies the irrigation and domestic needs of about 15 square miles of territory, including the cities of Azusa, Covina and Duarte. Their scenic attractions draw large numbers of picnickers from Los Angeles County, and as a result the waters are subject to grave danger of human pollution. Chlorination has been recommended.

SPECIAL INVESTIGATIONS.

Typhoid epidemic at San Pablo Dam. See preceding pages of this report.

LABORATORY WORK.

Bacteriological examinations of water—202, of which 85 or 42.1 per cent showed contamination.

Bacteriological examinations of sewage—5.

Sanitary chemical examinations of water—13.

Chemical examinations of water—198 (partial).

Mineral analyses of water—2.

REPORT OF THE BUREAU OF FOODS AND DRUGS FOR DECEMBER, 1916.

E. J. LEA, M.S., Director.

Two hundred and ninety-seven samples of food, drugs and miscellaneous materials were received at the laboratory during the month of December.

Official Samples.

Foods.

| | | | |
|--------------------------------------|----|--------------------------------|---|
| Beverages ----- | 2 | Meats ----- | 7 |
| Bread, gluten ----- | 2 | Milk, Pasteurized ----- | 9 |
| Butter ----- | 3 | Mussels ----- | 1 |
| Condiments and tomato products ----- | 14 | Oranges ----- | 3 |
| Cream tartar ----- | 1 | Peas, canned ----- | 1 |
| Eggs ----- | 34 | Pears, canned ----- | 1 |
| Extracts ----- | 2 | Salmon ----- | 1 |
| Flour, gluten ----- | 2 | Sardines ----- | 3 |
| Gelatine ----- | 2 | Soup, tomato ----- | 1 |
| Herrings ----- | 2 | Spices ----- | 5 |
| Ice cream powder ----- | 1 | Syrups, soda ----- | 2 |
| Liquors ----- | 11 | Walnuts and walnut meats ----- | 6 |
| Macaroons ----- | 2 | Whippo desserts ----- | 1 |

Drugs.

| | | | |
|--------------------------|---|-----------------------|---|
| Camphorated oil ----- | 2 | Jamaica rum ----- | 1 |
| Capsicum, tincture ----- | 1 | Tonic, port ----- | 1 |
| Gin, asparagus ----- | 1 | Trional tablets ----- | 1 |
| Iodine, tincture ----- | 2 | Water, mineral ----- | 1 |

Bread, gluten. Two samples of gluten bread were analyzed. One conformed to the standard, while the other was made from common wheat flour.

Condiments. Fourteen samples of tomato catsups, tomato pulps and tomato pastes were analyzed. The tomato pastes were very high in bacteria, containing over one billion bacteria per cubic centimeter. The catsups, with one exception, were in good condition.

Eggs. Thirty-four samples of eggs were collected and examined; nearly all of these were sold as fresh, but upon examination were found to consist of old, stale, and in some cases, rotten eggs. When such eggs as these are sold to the public, it is either a case of wilful fraud or carelessness. Any commercial candler with average ability would have eliminated these eggs from the class known as "fresh eggs."

Extracts. Two samples of extracts were examined. These consisted of highly diluted extracts, the labels of which did not declare the amount of dilution as required by the food law.

Flour, gluten. Two samples of flour sold as gluten flour were examined. One of these conformed to the standard for gluten flour; the other was an ordinary wheat flour.

Liquor. Eleven samples of liquor were analyzed. These consisted of gins, brandies, cordials, etc. The majority of these samples were inferior products sold in imitation of imported liquors.

Meats. Seven samples of sausage and chopped meat were analyzed. Two of these contained the prohibited sodium sulfite, and two contained cereals not declared on the label.

Milk, Pasteurized. Nine samples were analyzed. Six of these samples were sold as "Grade A milk" and were supposed to conform to the new milk law (Chapter 742, Statutes 1915). Four of these six samples contained bacteria far in excess of the limits allowed in Grade A milk. They were, therefore, illegal. One sample of milk contained excessive debris, probably due to insanitary conditions.

Oranges. Three samples of oranges were examined. Two of these samples contained an excessive number of frozen oranges, and, therefore, were adulterated within the meaning of the California Pure Food Act.

Peas, canned. One sample was examined and found to contain copper sulfate, a coloring matter prohibited in food materials.

Sardines. Two of these samples consisted of partly decomposed material unfit for human consumption. These cans were swelled and under a recent ruling of the State Board of Health the dealer was at fault for selling cans in this condition.

Walnuts and walnut meats. Six samples of walnuts and walnut meats were examined. One sample of whole walnuts contained rancid meats in addition to mold. The walnut meat samples were rancid, moldy and some were infested with insects. This bureau is cooperating with the large walnut growers in this state in an effort to eliminate rancid, decomposed and unfit walnuts and walnut meats from the California markets. The information received from the California Walnut Growers' Association shows clearly that the sale of inferior nut meats is detrimental to the walnut industry. With the information now at hand, this bureau is prepared to investigate the walnut situation thoroughly, and with the assistance of the walnut interests in this state good results should be obtained.

Water, mineral. One sample of so-called mineral water was examined. This sample was labeled to indicate that it had excellent therapeutic qualities for certain diseases, which statements were false and misleading.

Unofficial Samples.

Foods.

| | | | |
|---------------------------------|----|---------------------------|----|
| Albumen for macaroons ----- | 1 | Milk ----- | 1 |
| Baking powder ----- | 7 | Milk, powdered ----- | 1 |
| Benkalso ----- | 1 | Peas, canned ----- | 2 |
| Chocolate ----- | 5 | Pork and beans ----- | 1 |
| Cocoa ----- | 9 | Raisins ----- | 1 |
| Cocoanut for macaroons ----- | 1 | Rice ----- | 1 |
| Condiment ----- | 1 | Salmon, canned ----- | 2 |
| Cotton seed cake and meal ----- | 4 | Sardines ----- | 3 |
| Eggs ----- | 1 | Sugar, powdered ----- | 1 |
| Extracts ----- | 1 | Sugar for macaroons ----- | 2 |
| Gelatine ----- | 12 | Vinegar ----- | 2 |
| Licorice candy ----- | 1 | Walnuts ----- | 27 |

Drugs.

| | | | |
|-----------------------------|---|-------------------------------|---|
| Capsicum, tincture ----- | 1 | Ginger, soluble essence ----- | 2 |
| Ginger, fluid extract ----- | 2 | | |

State Institution Samples.*Foods—Official.*

| | | | |
|-----------------|---|---------------------------|---|
| Cheese ----- | 1 | Oysters ----- | 1 |
| Cocoa ----- | 1 | Rice ----- | 1 |
| Corn meal ----- | 1 | Snices ----- | 4 |
| Flour ----- | 5 | Syrup, cherry ----- | 1 |
| Meat meal ----- | 1 | Tomatoes with puree ----- | 1 |

Foods—Unofficial.

| | | | |
|---------------------|---|----------------------|---|
| Baking powder ----- | 1 | Macaroni ----- | 1 |
| Beans, string ----- | 1 | Oysters ----- | 1 |
| Butter ----- | 1 | Peaches, dried ----- | 1 |
| Catsup ----- | 1 | Peas ----- | 1 |
| Cereals ----- | 3 | Potatoes ----- | 1 |
| Cheese ----- | 1 | Rice ----- | 1 |
| Cocoa ----- | 2 | Spice ----- | 2 |
| Coffee ----- | 4 | Sugar ----- | 1 |
| Corn meal ----- | 2 | Syrup ----- | 3 |
| Corn meal ----- | 1 | Tea ----- | 1 |
| Cornstarch ----- | 1 | Tomatoes ----- | 1 |
| Flour ----- | 3 | Vinegar ----- | 1 |
| Hominy ----- | 1 | Wheat, cracked ----- | 1 |

Miscellaneous Materials.

| | | | |
|---------------------|---|-----------------------|---|
| Leather ----- | 1 | Soda, crystals ----- | 1 |
| Oil, fuel ----- | 1 | Starch, laundry ----- | 1 |
| Soap ----- | 8 | Tallow ----- | 1 |
| Soda, caustic ----- | 1 | Tobacco ----- | 3 |

Seventy-two samples were examined for the various State Institutions. Nearly all of these samples were found to conform to specifications, the exceptions being flour containing less protein than required; soap containing excessive water; tallow which was rancid; dried peaches which consisted of an inferior grade of fruit, and potatoes containing a large percentage of inferior and rotten potatoes.

Cold Storage Samples.

| | | | |
|-----------------|---|---------------|---|
| Mushrooms ----- | 1 | Walnuts ----- | 2 |
|-----------------|---|---------------|---|

FALSE DEMONSTRATIONS OF FOOD AND FOOD PRODUCTS.

This bureau has carefully investigated the demonstrations of certain foods and food products in this state. There appears to be a tendency on the part of demonstrators to overrate the merits of the goods they are advertising. In some cases this overrating is entirely unwarranted.

Baking Powder.

The Calumet Baking Powder Company, of Chicago, has a corps of women in California who demonstrate at food shows, in stores, and who also make a house to house canvass. The printed literature distributed by this company is carefully worded in order to avoid violating the food laws. The demonstrators, however, in the particular instance investigated, made statements and construed facts in a way which was clearly misleading and deceiving to the public.

The following demonstration was made by the Calumet company to representatives of this bureau:

“Are you familiar with Calumet Baking Powder? Here we have the purest and best baking powder made. I will show you why, and you can make this test yourself when using the powder.

Take a perfectly dry glass and place two teaspoonsful of the powder in the glass, always use a dry spoon and never shake off the extra powder, just take the lid off the can and brush off the surplus. In this way you will have a perfectly level spoonful. Now, take the same amount of water and mix it thoroughly. Note the action of the powder. It rises at once and no matter how you shake the glass you can not shake down the powder. This is exactly what occurs when you use Calumet Baking Powder in your cake. No matter how much you jar the oven door the cake will not fall, if you use Calumet Baking Powder. Calumet Baking Powder is twice as strong as any other baking powder, and, therefore, requires only one-half as much. No other baking powder on the market today can stand such a test. The dried white of egg in this powder is the reason. No baking powder that does not contain white of egg could be tested in this way.

"Cream of tartar baking powders are injurious and should never be used. We have a very small per cent of alum in Calumet Baking Powder. This alum is only used to preserve the powder, and in the baking the heat drives it out of your cake, leaving no alum whatever in finished article. As you know, alum is often used internally and externally. Alum in the small amount that is used in this powder would not be harmful, anyway, but as I said, the heat of the oven drives it out there is none left in the finished product.

"The Rumford Baking Powder is a phosphate powder, made from bone phosphate, and if people knew this they wouldn't use it. It is not a nice idea to most people. The Calumet Baking Powder people also use phosphate, but not bone phosphate.

"The test that I just showed you can be used in the home and you can always be sure that the Calumet Powder is perfectly fresh."

After hearing and seeing a demonstration like the above the average housewife believes that Calumet Baking Powder is stronger than other baking powders, and that the use of Calumet Baking Powder does not result in any injurious effects whatever, while other baking powders may be decidedly injurious. This is not true, Calumet Baking Powder is not stronger than other powders, in fact it is not as strong as some of the other powders on the market. The very small percentage of egg albumen in the Calumet Powder serves to hold the gases while demonstrating with the powder itself in the glass, but in actual practice this small percentage of albumen has practically no effect. It will not make a cake rise any better than a similar baking powder without albumen, and the Calumet Baking Powder will not prevent a cake from falling any more than will any other baking powder which produces an equal quantity of carbon dioxide.

The Calumet Baking Powder Company, at the demonstration referred to above, had the following sign displayed:

CALUMET BAKING POWDER.

Makes Cake Raise, better than other Powders.

4X Stronger Than Royal.

The following statement regarding the harmfulness of baking powder is taken from Leach:

"As a matter of fact, the residue left in the bread by all classes of baking powder consists of one or more drugs recognized in the Pharmacopœia, all of which *in large quantity* exercise well-marked toxic effects on the human system. Artificial digestion experiments, and physiological tests on the lower animals, using excessive doses of any of the above drugs, do not show the effect of the everyday use of baking powder in bread on the human system, and only a systematic examination of the effect of such use on large numbers of people can prove conclusively whether or not any one class of baking powders is harmful, and hence whether or not it should be classed as adulterated."

Baking powder as used in bread, cake, etc., can not be considered as used "in large quantity," in fact the quantities eaten are relatively very small.

Whether tartrate powders, phosphate powders or alum powders are used in normal quantity for baking purposes, a chemical reaction occurs which alters the nature of the original ingredients. The resultant products are comparatively harmless, especially in view of the fact that the amount present is very small. The statement, therefore, that cream of tartar baking powders are injurious and should never be used, is entirely false and misleading.

A demonstrator of Crescent Baking Powder recently made the following statements to a representative of this bureau:

"See this lump of salts which was obtained from two teaspoonsful of Royal Baking Powder. (Exhibiting hard substance.)

"That is like glass—think of what it would do to your stomach! Crescent Baking Powder is the best baking powder on the market and the cheapest. You are always safe in using it, while other powders may be injurious."

These statements are clearly deceptive and tend to mislead the public.

Twelve samples of different brands of baking powder recently collected at random by our inspectors were analyzed with the following results:

| Brand | Available carbon dioxide | Total carbon dioxide |
|-------------------|--------------------------|----------------------|
| No label ----- | 10.0 | 10.8 |
| Alta ----- | 10.9 | 11.1 |
| Golden Star ----- | 13.5 | 14.1 |
| Layton's ----- | 13.1 | 13.9 |
| Crescent ----- | 12.8 | 13.7 |
| Folger's ----- | 13.4 | 14.2 |
| Calumet ----- | 13.3 | 13.6 |
| Royal ----- | 11.6 | 12.2 |
| K. C. ----- | 9.3 | 9.9 |
| Schilling's ----- | 14.7 | 15.9 |
| Rumford ----- | 11.9 | 12.7 |
| Benefit ----- | 10.0 | 10.8 |

There is no definite standard in this state for the amount of carbon dioxide in baking powder. Ten per cent of available carbon dioxide is generally regarded as the minimum in a normal powder. There is a slight variation in the carbon dioxide content of baking powders of the same brand, due either to the manufacture or age, but nearly all of the good brands contain at least ten per cent, or more, of available carbon dioxide.

G. Washington's Coffee.

A demonstrator of G. Washington's Coffee made the following statements to a representative of this bureau:

"In the manufacture of G. Washington's Coffee the acids, fiber and oil are removed. The oil is the poisonous part of coffee. In making the regular coffee you notice that the grounds are left behind. These grounds constitute a large per cent of what you buy and pay for, and contain the poison.

"G. Washington's Coffee can be used in any quantity without injury, because the poison is all removed and thrown away.

"The pure food laws in California are the strictest in the Union, and we could not label this coffee as 'pure' unless it really is pure."

Signs displayed at the place of demonstration read as follows:

G. WASHINGTON REFINED COFFEE
NEVER DISTURBS YOU.

G. WASHINGTON IS REFINED COFFEE.
IS 100% PURE COFFEE.

NEVER DISTURBS YOU.
NO HEADACHE
SOUR STOMACH FROM
ITS USE.

A signboard read:

YOU CAN DRINK G. WASHINGTON COFFEE—MADE INSTANTLY IN
THE CUP AT THE TABLE—PERFECTLY DIGESTIBLE—IT WON'T HURT
YOU.

The above statements and signs are false, and they deceive a great many people who do not know the actual facts.

The analysis of G. Washington's Coffee, according to John Phillips Street, of the Connecticut Agricultural Experiment Station, shows that it contains about 5 per cent of caffeine and 48 per cent of caffetannic acid.

In commenting on G. Washington's Prepared Coffee, Mr. Street states as follows:

"Its composition indicates that it is probably a finely pulverized dessicated coffee extract. The only respects in which it differs from normal coffee is its almost complete solubility, which naturally excludes most of the fat and oil (petroleum ether extract) and the insoluble nitrogenous compounds and carbohydrates. The other analytical data show that with these exceptions it is about four

times as concentrated as ordinary coffee. This concentration likewise affects the content of caffeine and caffetannic acid, the percentages found, 4.96 and 48.04, respectively, being somewhat over four times as much as shown in normal coffee. Whatever the Washington refining process has done, it has caused no diminution whatever in the two ingredients to which the harmful effect of coffee is generally attributed."

The statements made in demonstrating this coffee are not only false and misleading, but may result in discomfort or even injury to the consumer. Instead of being harmless, as the demonstrators would have the public believe, this coffee is four times more harmful than ordinary coffee when used in equal quantity by individuals who are injuriously affected by coffee.

California at the present time has no "false advertising" law which would cover such cases. Such a law, however, will be introduced at the present session of the legislature in order to protect the public from both foods and drugs which may be labeled in compliance with the law, but which are falsely advertised by demonstrators, bill boards, signs, etc.

Needed Legislation.

California has not as yet enacted a law governing feeding stuffs. Such a law would be of great benefit to farmers and others who raise stock. Such a law would provide that the label or tag on all feeding stuffs declare the net weight of the package; the name, brand or trading mark; the name and principal address of the manufacturer or person responsible for placing the commodity on the market; the minimum per centum of crude protein; the minimum per centum of crude fat; the maximum per centum of crude fiber and the specific name of each ingredient used in its manufacture.

With the above information the purchaser would be better guided in his selection of foods and protected against fraud.

A "false advertising" law is badly needed in California to protect the public against certain foods and drugs which are falsely and extravagantly advertised in newspapers, magazines, pamphlets, by the circulation of handbills, by demonstrators and on bill boards, or in any other manner.

At the present time there are a great many food and drug products which are falsely advertised in this state, and which we are powerless to prevent owing to the lack of a proper law.

Articles of Food Condemned Upon Physical and Chemical Examination as Unfit for Food, December, 1916.

| Material | Amount | Condition | Locality | Disposition |
|------------------------------|--------------|--------------------|-----------------|-------------|
| Absinthe ----- | 81 pints | Sale prohibited -- | San Francisco - | Destroyed |
| Cakes ----- | 29 pounds | Moldy ----- | San Francisco - | Denatured |
| Catsup ----- | 42 bottles | Decomposed ----- | Santa Rosa ---- | Destroyed |
| Chutney ----- | 6 pounds | Decomposed ----- | Los Angeles --- | Destroyed |
| Fruit, pie ----- | 72 pounds | Fermented ----- | San Francisco - | Destroyed |
| Nut filler for cake ----- | 30 pounds | Moldy ----- | San Francisco - | Destroyed |
| Pickles ----- | 133 pounds | Decomposed ----- | Los Angeles --- | Destroyed |
| Relish ----- | 8 bottles | Decomposed ----- | San Francisco - | Destroyed |
| Sardines ----- | 630 cans | Decomposed ----- | Los Angeles --- | Destroyed |
| Walnut meats-- | 1,600 pounds | Rancid ----- | San Francisco - | Denatured |

Convictions Under the Pure Food and Drugs Act During December.

| Name of article | Offense | Accused dealer | Locality | Penalty |
|---------------------------|------------------------------|-------------------------------|-------------------|---|
| Aromatic Cordial ----- | Adulterated and mislabeled-- | Duncan & Heilrath----- | San Francisco -- | Fined \$25 and material ordered destroyed |
| Blackberry Cordial ----- | Adulterated and mislabeled-- | The Samuel Co., Inc.----- | San Francisco -- | Fined \$5.00 |
| Chilblain Remedy ----- | Mislabeled ----- | I. Beck ----- | San Francisco -- | O. R. 30 days |
| Coffee ----- | Adulterated and mislabeled-- | M. J. Casovia ----- | Oakland ----- | Fined \$5.00 |
| Dander-go ----- | Adulterated and mislabeled-- | Bauer Manufacturing Co.----- | San Francisco -- | O. R. 60 days |
| Eggs ----- | Adulterated and mislabeled-- | Umeda Co. ----- | San Francisco -- | Fined \$25.00 |
| Gin ----- | Adulterated and mislabeled-- | Mike Galvin ----- | San Francisco -- | O. R. 30 days |
| Gin ----- | Adulterated and mislabeled-- | C. F. Penther----- | Oakland ----- | Fined \$5.00 |
| Gin, Buchu ----- | Mislabeled ----- | Julius Levin Co.----- | San Francisco -- | Fined \$25.00 |
| Gin, Gordon ----- | Adulterated and mislabeled-- | Wm. Clack ----- | San Francisco -- | O. R. 30 days |
| Gin, Gordon ----- | Adulterated and mislabeled-- | F. W. Oest----- | San Francisco -- | Fined \$10.00 |
| Gin, Gordon ----- | Adulterated and mislabeled-- | Thos. Darcey ----- | San Francisco -- | O. R. 30 days |
| Gin, Gordon ----- | Adulterated and mislabeled-- | Louis Cerles ----- | San Francisco -- | Fined \$5.00 |
| Gin, Gordon ----- | Adulterated and mislabeled-- | Henry Meyer ----- | San Francisco -- | Fined \$10.00 |
| Ginger Ale ----- | Adulterated and mislabeled-- | W. F. Kemppe ----- | San Francisco -- | Fined \$10.00 |
| Iron, Tincture ----- | Adulterated and mislabeled-- | I. Beck ----- | Fort Bragg ----- | O. R. 6 months |
| Meat, Chopped ----- | Adulterated ----- | Eli Milaglav ----- | San Francisco -- | Fined \$25.00 |
| Milk, Skimmed ----- | Adulterated and mislabeled-- | Smith & Doyle, Guarantor----- | San Francisco -- | Fined \$50.00 |
| Mustard ----- | Adulterated and mislabeled-- | St. Cloud Grocery----- | Los Angeles ----- | Fined \$5.00 |
| Oil Bergamot ----- | Adulterated and mislabeled-- | I. Beck ----- | San Francisco -- | Fined \$25.00 |
| Peppermint, Essence ----- | Adulterated and mislabeled-- | M. Harris ----- | San Francisco -- | O. R. 30 days |
| Sausage ----- | Mislabeled ----- | Bay State Market----- | San Francisco -- | O. R. 90 days |
| Sweet Oil ----- | Adulterated and mislabeled-- | Goodman Drug Co.----- | San Francisco -- | O. R. 6 months |
| Syrup, Orange ----- | Mislabeled ----- | Victoria Pastry Co.----- | San Francisco -- | O. R. 6 months |
| Syrup, Raspberry ----- | Mislabeled ----- | E. Martinoni, Guarantor----- | San Francisco -- | Fined \$10.00 |
| Syrup, Strawberry ----- | Adulterated and mislabeled-- | H. Lekas ----- | Oakland ----- | Fined \$5.00 |
| Whiskey ----- | Adulterated and mislabeled-- | J. F. Harrington----- | Oakland ----- | Fined \$20.00 |
| Yow Yee Oil ----- | Adulterated and mislabeled-- | Dr. Chow Juyan----- | San Francisco -- | Fined \$25.00 |

Cases Referred to District Attorneys, December 5, 1916.

| Name of article | Offense | Accused dealer | Locality |
|--|---|--|------------------------------|
| Absinthe ----- Aceto salicylic acid ----- | Adulterated; sale prohibited; ----- Adulterated and mislabeled; con- sists of salicylic acid and a re- ducing sugar. | Bertin & Lepori, Guarantors ----- Kent's Drug Store ----- | San Francisco Los Angeles |
| Bread, Oat-Gluten Flour-Meal, Health- | Adulterated and mislabeled; other materials substituted. | H. G. Cubbison, Guarantor ----- | Los Angeles |
| Bread, Gluten ----- | Adulterated and mislabeled; other materials substituted. | Ralph's Grocery Co. ----- | Los Angeles |
| Bread, Gluten ----- | Adulterated and mislabeled; other materials substituted. | Young's Market Co., Inc. ----- | Los Angeles |
| Bread, Gluten ----- | Adulterated and mislabeled; other materials substituted. | Martin Bros. ----- | Los Angeles |
| Bread, Glutos ----- | Adulterated and mislabeled; other materials substituted. | John Schmid, Eagle Bakery ----- | Los Angeles |
| Bread, Glutos ----- | Adulterated and mislabeled; other materials substituted. | H. G. Cubbison, Guarantor ----- | Los Angeles |
| Bread, Whole Wheat Gluten ----- | Adulterated and mislabeled; other materials substituted. | Electric Hygienic Bake Shop ----- | San Francisco |
| Bread, Butter ----- | Adulterated and mislabeled; other materials substituted. | Old Homestead Bakery, J. A. Banzhaf. | San Francisco |
| Brandy or Cordial, Blackberry ----- | Adulterated and mislabeled; other materials substituted. | W. F. Corey ----- | Marysville |
| Catsup ----- | Adulterated and mislabeled; filthy, decomposed and mislabeled; filthy, decomposed vegetable substance. | Home Restaurant, Geo. Watanabe. | Vallejo |
| Catsup ----- | Adulterated and mislabeled; filthy, decomposed and mislabeled; filthy, decomposed vegetable substance. | Lewis Packing Co., Guarantor ----- | San Francisco |
| Catsup, Tomato ----- | Adulterated and mislabeled; filthy, decomposed and mislabeled; filthy, decomposed vegetable substance. | Lewis Packing Co., Guarantor ----- | San Francisco. |
| Camphorated Oil ----- | Adulterated and mislabeled; other materials substituted. | Dr. H. Kalliwoda ----- | Los Angeles. |
| Cider ----- | Adulterated and mislabeled; other materials substituted. | G. W. Scougall ----- | Oakland. |
| Cider, Sweet Compound Apple ----- | Adulterated and mislabeled; other materials substituted. | Belfast Ginger Ale Co. ----- | San Francisco. |
| Eggs ----- | Adulterated and mislabeled; de- composed animal substance. | Park Poultry Co.* ----- | Los Angeles. |
| Eggs ----- | Adulterated and mislabeled; de- composed animal substance. | E. Hunt ----- | Los Angeles. |

*Park Poultry Co. referred on 3 counts. Hunter-Smith Produce Co. referred on 2 counts.

| | | | | |
|------|---|-----|---|-----------------|
| Eggs | Adulterated and mislabeled; composed animal substance. | de- | Loeb-Fleischman Co., Guarantors. | Los Angeles. |
| Eggs | Adulterated animal substance. | de- | Fayway Butter Store, H. L. Childs. | Long Beach. |
| Eggs | Adulterated animal substance. | de- | Sam Seelig | Los Angeles. |
| Eggs | Adulterated animal substance. | de- | R. P. Helman | Los Angeles. |
| Eggs | Adulterated animal substance. | de- | I. Takano | Los Angeles. |
| Eggs | Adulterated animal substance. | de- | Rock Bottom Grocery | Los Angeles. |
| Eggs | Adulterated animal substance. | de- | H. Levey | Long Beach. |
| Eggs | Adulterated animal substance. | de- | Geo. Kolovos | Los Angeles. |
| Eggs | Adulterated animal substance. | de- | H. A. Robert | Los Angeles. |
| Eggs | Adulterated animal substance. | de- | Hunter-Smith Produce Co., Guarantors.* | Los Angeles. |
| Eggs | Adulterated animal substance. | de- | Pacific Coast Beef and Provision Co., A. Smith, Guarantors. | Los Angeles. |
| Eggs | Adulterated animal substance. | de- | Wilson & Co., Guarantors. | Los Angeles. |
| Eggs | Adulterated animal substance. | de- | Walters & Gelderman | Los Angeles. |
| Eggs | Adulterated animal substance. | de- | Independent Meat and Provision Co., Guarantors. | Los Angeles. |
| Eggs | Adulterated animal substance. | de- | H. G. Chaffee Co. | South Pasadena. |
| Eggs | Adulterated animal substance. | de- | Flaws & Smith Egg Co., Guarantors | Los Angeles. |
| Eggs | Adulterated animal substance. | de- | Dorner's Bakery | Los Angeles. |
| Eggs | Adulterated animal substance. | de- | Cole & Cole | Los Angeles. |
| Eggs | Adulterated animal substance. | de- | New York Model Bakery, Max Bloom. | Los Angeles. |
| Eggs | Adulterated animal substance. | de- | Ozaki Co., K. Ozaki, Prop. | Los Angeles. |
| Eggs | Adulterated animal substance. | de- | West Coast Produce Co., Guarantors. | Los Angeles. |

Cases Referred to District Attorneys, December 5, 1916—Continued.

| Name of article | Offense | Accused dealer | Locality |
|-------------------------------|--|--|----------------|
| Eggs ----- | Adulterated and mislabeled; decomposed animal substance. | W. C. Freeman, Guarantor----- | Pasadena. |
| Eggs ----- | Adulterated and mislabeled; decomposed animal substance. | Swift & Co., Guarantors----- | Oakland. |
| Eggs ----- | Adulterated and mislabeled; decomposed animal substance. | Bretz Bros., Guarantors----- | Hynes. |
| Eggs ----- | Adulterated and mislabeled; decomposed animal substance. | Haber Poultry and Egg Market, Guarantors. | Los Angeles. |
| Eggs ----- | Adulterated and mislabeled; decomposed animal substance. | J. A. Frey----- | Los Angeles. |
| Eggs ----- | Adulterated and mislabeled; decomposed animal substance. | S. Rosenthal, Lewis Market----- | Oakland. |
| Egg Custard Powder----- | Adulterated and mislabeled; other materials substituted. | H. & S. Manufacturing Co., Guarantors. | Oakland. |
| Egg Powder ----- | Adulterated and mislabeled; other materials substituted. | John M. Julius, Guarantor----- | San Francisco. |
| Flavor, Pure Lemon----- | Adulterated and mislabeled; other materials substituted. | H. H. Ware-Miles Co.----- | Los Angeles. |
| Flavoring, Diluted Lemon----- | Adulterated and mislabeled; other materials substituted. | Hencken's Market ----- | San Francisco. |
| Gin ----- | Adulterated and mislabeled; other materials substituted. | Clay Ten Bar, M. Sabatino----- | Oakland. |
| Ginger, Medicated ----- | Mislabeled; statements on label false and misleading. | Dr. Chow Juyan's Tea and Herb Sanitarium. | San Francisco. |
| Herring ----- | Adulterated and mislabeled; filthy, decomposed animal substance. | M. A. Mulcahy----- | Los Angeles. |
| Herring, Kipperd ----- | Adulterated and mislabeled; filthy, decomposed animal substance. | K. Kamumoto ----- | Long Beach. |
| Ice Cream, Maple Nut----- | Adulterated and mislabeled; filthy, decomposed vegetable substance; imitation maple product. | Miller Creamery Co.*----- | Oakland. |
| Lakure ----- | Mislabeled; statements false and fraudulent. | Lake County Mineral Salts and Water Co. | Petaluma. |
| Liniment ----- | Mislabeled; statements false and fraudulent. | Maurice Rosenthal ----- | San Francisco. |
| Macaroons ----- | Mislabeled; large percentage of flour used. | Bruno Seifert, Prop., North Sacramento Bakery. | Sacramento. |

| | | | |
|---------------------------------------|--|--|----------------|
| Macaroons, Coconut ----- | Adulterated and mislabeled; other materials substituted. | Cauman & Cruise ----- | Sacramento. |
| Milk, Velvet Brand ----- | Adulterated and mislabeled; filthy, decomposed animal substance. | Smith & Doyle, Guarantors ----- | Los Angeles. |
| Pork Sausage ----- | Adulterated; sulfur dioxide ----- | Aggens' Market, H. M. Aggens, Prop.* ----- | Petaluma. |
| Rheumatic and Gout Cure ----- | Mislabeled; statements false and fraudulent. | Maurice Rosenthal ----- | San Francisco. |
| Sardines ----- | Adulterated and mislabeled; filthy, decomposed animal substance. | E. M. Simmons ----- | Los Angeles. |
| Sardines ----- | Adulterated and mislabeled; filthy, decomposed animal substance. | McKee's Grocery ----- | Los Angeles. |
| Sardines ----- | Adulterated and mislabeled; filthy, decomposed, and putrid animal substance. | H. Rykoff & Co. ----- | Los Angeles. |
| Syrup, Raspberry ----- | Mislabeled; coal tar color and artificial flavor not declared. | Lafayette Bar, B. J. Dunwoody ----- | Sacramento. |
| Tomatoes from field ----- | Adulterated and mislabeled; filthy, decomposed vegetable substance. | J. W. Walls, Guarantor ----- | Anaheim. |
| Tomato paste or "Conserva" ----- | Adulterated and mislabeled; filthy, decomposed vegetable substance. | Nardi Bros. & Co. ----- | San Francisco. |
| Vinegar, Cider ----- | Mislabeled; dilution not stated. | Pacific Coast Mail Order House ----- | Los Angeles. |
| Walnut Meats ----- | Adulterated and mislabeled; filthy, decomposed vegetable substance. | Miller Creamery Co.* ----- | Oakland. |
| Walnut Pieces ----- | Adulterated and mislabeled; filthy, decomposed vegetable substance. | Kohn-Boldemann Co. ----- | San Francisco. |
| Water, Console's Strong Mineral ----- | Mislabeled; statements false and fraudulent. | John Console ----- | El Centro. |
| Zinn's Mystery Oil ----- | Mislabeled; statements false and fraudulent. | Maurice Rosenthal ----- | San Francisco. |

*Aggens' Market referred on 2 counts. Miller Creamery Co. referred on 2 counts.

The following notices of judgment were received from the United States Department of Agriculture, Washington, during the month.

| | N. J. No. |
|---|------------------------|
| Arch Brand Blood Remedy..... | 4477 |
| Beans, pork | 4453, 4475 |
| B. I. F. Combination..... | 4498 |
| Bitters— | |
| Poland Wine | 4456 |
| Sherman's, Dr. | 4455 |
| Brandy— | |
| Metropolitan Distributing Company..... | 4454 |
| Apricot | 4496 |
| Trestler | 4464 |
| Bull's, Dr. John, Compound..... | 4451 |
| Butter | 4485 |
| Butter, Apple | 4493 |
| Cheese | 4500 |
| Chestnuts | 4458 |
| Classe's Cough Sirup..... | 4489 |
| Compound, peach jam, raspberry jam..... | 4493 |
| Cooper's Quick Relief..... | 4460 |
| Cure, Catarrh, Dr. Sykes..... | 4459 |
| Electric, W. J. Parker Co..... | 4470 |
| Edward's, Mrs., Infant Sirup..... | 4471 |
| Eggs, Liquid | 4490 |
| Elixir, Bronchial | 4478 |
| Extract— | |
| Copabia and Sarsaparilla..... | 4473 |
| Lemon | 4499 |
| Lemon Terpeneless | 4492 |
| Quaker Herb | 4474 |
| Vanilla | 4469 |
| Grape Juice | 4452 |
| Oil, Cassia | 4479 |
| Payne's New Discovery..... | 4474 |
| Pepper | 4468, 4482, 4483 |
| Remedy— | |
| Asthma and Hay Fever..... | 4478 |
| Blood | 4477 |
| Hair | 4486 |
| Salmon, canned | 4494 |
| Sirup— | |
| Cough | 4489 |
| Infant | 4471 |
| Tamarind | 4472 |
| Tomato— | |
| Conserve | 4457 |
| Pulp | 4462, 4476, 4484 |
| Puree | 4488 |
| Strained | 4465, 4487 |
| Vinegar | 4463, 4466, 4467, 4495 |
| Wilson's Preparation | 4480 |
| Wine | 4481 |

REPORT OF THE BUREAU OF REGISTRATION OF NURSES.

ANNA C. JAMMÉ, R.N., Director.

During the month of December inspection of schools for nurses was made in San Francisco and Oakland. This inspection shows that schools are making effort to meet the requirements of the Board. There are handicaps both for the directors of hospitals and superintendents of schools, such as scarcity of funds that may be applied to the school and inability to secure instructors. This in time will be removed as the real function of the school is made apparent and when we can in our own state produce our teachers from our schools for nurses. As the work of organizing the class instruction under a more definite and uniform system progresses it is noted that there is added interest shown by the students. This is without doubt due to the fact that the student now sees the organization of her course from the beginning to the end and understands the correlation of the various subjects. Heretofore she has been led rather blindly and could not see the steps from year to year. The growing tendency towards cooperation between schools and grouping of classes from various schools is creating an added stimulus which will lead to more uniform instruction and better standardization of nursing in the state.

This cooperative tendency is being demonstrated in several instances where students are receiving instruction either in a high school or private school in certain subjects as chemistry, physics and cookery. In San Francisco the schools in connection with Mount Zion Hospital, Hahnemann Hospital and the Children's Hospital are sending their students to a special school for dietetics, thereby combining instruction under one head.

Another instance in the grouping of classes has been demonstrated in Los Angeles, where a course in public health nursing has been given under the direction of Miss Mary E. Lent, R.N., secretary of the National Organization for Public Health Nursing, and with the help and cooperation of the Southern California League of Nursing Education. The course was started in November, 1916, and arranged to cover a period of three months, or twelve lecture periods, taking up the following topics:

1. History Public Health Nursing and its Development.
2. Effect of Disease from an Economic Standpoint upon a Community.
3. Contagion—its relation to the family and public.
4. Sewerage and Garbage Disposal.
5. Housing.
6. Milk.
7. Water and Food.
8. Immigration and Labor.
9. Social Insurance.
10. Social Hygiene.
11. Scientific Study of Delinquency.
12. Psychology (applied).

In writing of the course, Miss Lent gives the following:

"We do not in any sense consider this a public health nursing course; it simply offers suggestions in a practical way and presents the social significance and social treatment of disease from the point of view of care and prevention, which we hope may develop into regular instruction to be distributed throughout the entire three years' course in all training schools for nurses with credits allowed in the finals. In order that nurses may have a basis of knowledge on social and civic conditions, also to know something of the extent of problems, such as housing, milk, water, food inspection, labor conditions, immigration, delinquency and prostitution, and to have an idea of the present attitude of experts towards these various subjects, we believe that these courses are bound to create in pupil nurses a desire to know more about social problems, and to awaken in them the responsibility and opportunity of the nursing profession in relation to such problems.

This equipment is as necessary for the nurse who cares for illness in the wealthy home or hospital as for the nurse who goes to the home of the less fortunate, and it makes her generally a more helpful and valuable citizen with a wider vision."

Los Angeles superintendents deserve commendation in taking the lead in the state in establishing this cooperative public health course. It is very possible that other cities will be able to do the same for there should be no scarcity of opportunity in a city large enough to maintain two or three training schools.

Very few of the nurses who are engaged in public health work today have had the necessary preliminary training to fit themselves for this most important work. This also applies to the health officers. Most of the nurses in the field are successful in the work, but it is not because of the training they have had. They are successful in spite of it. They are naturally adapted to it. They are in the work because they have seen opportunities that others have not seen. They have been alert to grapple with the new problems and these nurses have trained themselves at expense of time and energy and often the progress of the work. The success of public health work has been interfered with frequently because of the lack of training of the workers. We need training schools which will meet the new demand; which will prepare nurses who care to enter this newer field, and which will set a standard so that all of our nurses will be trained alike and along correct lines. Without them we are going to fall into many errors. Each nurse will develop her own standards and ideas of efficiency, her own methods of handling the problems she meets, and before we are aware of it we shall be hopelessly mixed. We shall have no uniformity and no standards. We can not afford to let each one do this for herself. We need standardized uniformity in training and methods of carrying on the work. Our training schools can alone furnish such standards.—*Wm. DeKleine, M.D., Lansing, Mich.*

**PAGINATION
INCORRECT**

p. 125-354

Should be p. 431-660.